```
1 atgaagtetg geteeggagg agggteeeg acctegetgt gggggetegt gtttetetee
  61 gccgcgctct ctctctggcc gacgagtgga gaaatctgtg ggcccggcat tgacatccgc
 121 aacgactatc agcagetgaa gegeetggaa aactgeaegg tgategaggg etteeteeae
 181 atcctgctca tetecaagge egaggactae egaagetaee getteeceaa geteacegte
 241 atcactgagt acttgctgct cttccgagtc gctggcctcg agagcctggg agacctcttc
 301 cccaacctca cagtcatccg tggctggaaa ctcttctaca actacgcact ggtcatcttc
 361 gagatgacca atctcaagga tattgggctt tataatctga ggaacattac tcggggggcc
 421 atcaggattg agaagaacgc cgacctctgt tacctctcca ccatagactg gtctctcatc
 481 ttggatgegg tgtccaataa ctacattgtg gggaacaagc ccccgaagga atgtggggac
 541 ctgtgtccag ggacattgga ggagaagccc atgtgtgaga agaccaccat caacaatgag
 601 tacaactacc gctgctggac cacaaatcgc tgccagaaaa tgtgcccaag tgtgtgcggg
 661 aagcgagect gcaccgagaa caacgagtgc tgccacccgg agtgcctggg cagctgccac
 721 acaccggacg acaacacaac ctgcgtggcc tgcagacact actactacaa aggcgtgtgt
 781 gtgcctgcct gcccgcctgg cacctacagg ttcgagggct ggcgctgtgt ggatcgcgat
 841 ttctgcgcca acatccccaa cgctgagagc agtgactcgg atggcttcgt tatccacgac
 901 gatgagtgca tgcaggagtg tccctcaggc ttcatccgca acagcaccca gagcatgtac
 961 tgtatcccct gcgaaggccc ctgccccaaa gtctgcggcg atgaagagaa gaaaacgaaa
1021 accategatt eggtgactte tgetcaaatg etceaaggat geaceateet gaagggeaat
1081 ctgcttatta acatccggag aggcaataac attgcctcgg agttggagaa cttcatgggg
1141 ctcatcgagg tggtgaccgg ctacgtgaag atccgccatt ctcatgcctt ggtctccttg
1201 tccttcctga agaaccttcg tctcatctta ggagaggagc agctggaagg gaactactcc
1261 ttctatgtcc tagacaacca gaacttgcag cagctgtggg actggaacca ccggaacctg
1321 acceptcaggt ccggaaagat gtactttgct ttcaatccca agctgtgtgt ctccgaaatt
1381 taccgcatgg aggaagtgac cggaaccaag ggacqccaga gcaaagggga cataaacacc
1441 aggaacaacg gagagcgagc ttcctgtgaa agtgatgttc tccgtttcac ctccaccacg
1501 acctggaaga accgaatcat cataacgtgg caccggtacc ggccgccgga ctaccgggat
1561 ctcatcagct tcacagttta ctacaaggag gcaccattta aaaacgttac ggaatatgac
1621 gggcaggatg cctgtggctc caacagctgg aacatggtgg atgtagacct gcctccgaac
1681 aaggagggcg agcctggcat tttactgcat gggctgaagc cctggaccca gtatgctgtc
1741 tatgtcaagg ctgtgaccct caccatggtg gaaaacgacc atatccgtgg ggccaaaagt
1801 gaaatettgt acattegeac caatgettea gteeetteea tteeeetaga tgteetetea
1861 gcatcaaact cttcctctca gctgattgtg aagtggaatc ctccaactct gcccaatggt
1921 aacttgagtt actacattgt gaggtggcag cggcagcccc aggatggtta cctgtaccgg
1981 cacaactact getecaaaga caaaatacee ateagaaagt aegeegatgg taceategae
2041 gtggaggagg tgacggaaaa tcccaagaca gaagtgtgtg gtggtgataa agggccatgc
2101 tgcgcttgcc ctaaaactga agctgagaag caggctgaga aggaggaggc tgagtaccgt
2161 aaagtetttg agaattteet teacaattee atetttgtge eeaggeeega aaggaggegg
2221 agagacgtca tgcaagtggc caacacgacc atgtccagcc gaagcaggaa caccacggta
2281 gctgacacct acaatatcac agacccggag gagttcgaga cagagtaccc tttctttgag
2341 agcagagtgg ataacaagga gaggactgtc atctccaacc tccggccttt cactctgtac
2401 cgcatcgata tccacagctg caaccacgag gctgagaagc tgggctgcag cgcctccaac
2461 ttcgtctttg cgagaaccat gccagcagaa ggagcagatg atatccctgg tccggtgacc
2521 tgggagccaa gacccgaaaa ctccatcttt ttaaagtggc cagaacccga gaaccccaac
2581 ggattgatcc taatgtatga aattaaatac gggtcgcaag tcgaggatca gcgggaatgt
2641 gtgtccagac aggagtacag gaagtacgga ggggccaaac tcaaccgtct aaacccaggg
2701 aactatacag cccggattca ggctacctcc ctctctggga atgggtcatg gacagatcct
2761 gtgttcttct atgtccccgc caaaacgacg tatgagaact tcatgcatct gatcattgct
2821 ctgccggttg ccatcctgct gatcgttggg gggctggtta tcatgctgta tgtcttccat
```

FIGURE 1A

```
2881 agaaagagaa ataacagcag gttgggcaat ggagtgctgt atgcttctgt gaaccccgag
2941 tatticagcg cagctgatgt gtacgtgcct gatgaatggg aggtagctcg agagaagatc
3001 accatgaacc gggagetegg acaagggtee tttgggatgg tetatgaagg agtggecaag
3061 ggtgtggtca aggatgaacc cgaaaccaga gtggccatca agacggtaaa cgaggctgca
3121 agtatgcgtg aaagaatcga gtttctcaac gaggcctcgg tgatgaagga gttcaattgt
3181 caccatgtgg tccggttgct gggtgtggta tcccaaggcc agcccaccct ggtcatcatg
3241 gaactaatga cacgcggtga tctcaaaagt tatctccggt ctctgaggcc agaagtggag
3301 cagaataatc tagtcctcat tcctccgagc ttaagcaaga tgatccagat ggctggagag
3361 attgcagatg gcatggccta cctcaatgcc aacaagttcg tccacagaga ccttgctgct
3421 aggaactgca tggtagccga agatttcaca gtcaaaattg gagatttcgg tatgacacga
3481 gacatctacg agacggacta ctaccggaaa ggcgggaagg gtttgctgcc tgtgcgctgg
3541 atgtctcccg agtccctcaa ggatggtgtc ttcactactc attctgatgt ctggtccttc
3601 ggggtcgtcc tctgggagat cgccacgctg gctgagcagc cctaccaggg cttgtccaac
3661 gagcaagttc ttcgtttcgt catggagggt ggccttctgg acaagccgga caactgccct
3721 gatatgctgt ttgaacttat gcgcatgtgc tggcagtata accccaagat gcggccctcc
3781 ttcctggaga tcatcggcag catcaaggat gagatggagc ccagcttcca ggaggtctcc
3841 ttctactaca gcgaggagaa caagcctccc gagccagagg agctggagat ggagctggag
3901 alggagectg agaacatgga gagegteeca etggaceett eggeeteete ageeteeetg
3961 cctctgcctg aaagacactc aggacacaag gctgagaatg gcccgggccc tggcgtgctc
4021 gttctccgcg ccagttttga tgagagacag ccttacgctc acatgaacgg gggacgcgcc
4081 aacgagaggg ccttgcctct gccccagtcc tcgacctgct gatcctcgga cacaccgaag
4201 caggttgtaa caatctattc acaagcctcc tgtacctcag tggatcttca gacctgccat
4261 tgctgcccac gggagacggc ttctctgcag taaacacatt tgggaccttc ctttttcaa
4321 tatgcaagca gctttttatt tcctttaccc gaacccttaa ctgacatggg cctctgcaaa
4381 cettaatgac aacaettaat agcaacagga cactegagaa ttgagtetet tegttetetg
4441 cettttete teetetgeet teetetetg eceteteee tteeaettee aegeteteet
```

FIGURE 1B

```
1 mksgsgggsp tslwglvfls aalslwptsg eicgpgidir ndyqqlkrle nctviegflh
 61 illiskaedy rsyrfpkłtv iteylllfrv agleslgdlf pnltvirgwk lfynyalvif
121 emtnlkdigl ynlrnitrga irieknadlc ylstidwsli ldavsnnyiv gnkppkecgd
181 lcpgtleekp mcekttinne ynyrcwttnr cqkmcpsvcg kractennec chpeclgsch
241 tpddnttcva crhyyykgvc vpacppgtyr fegwrcvdrd fcanipnaes sdsdgfvihd
301 decmqecpsg firnstqsmy cipcegpcpk vcgdeekktk tidsvtsaqm lqgctilkgn
361 llinirrgnn iaselenfmg lievvtgyvk irhshalvsl sflknlrlil geeqlegnys
421 fyvldnonig glwdwnhrni tvrsgkmyfa fnpklcvsei vrmeevtgtk groskgdint
481 rnngerasce sdvlrftstt twknriiitw hryrppdyrd lisftvyyke apfknvteyd
541 gqdacgsnsw nmvdvdlppn kegepgillh glkpwtqyav yvkavtltmv endhirgaks
601 eilyirtnas vpsipldvls asnsssqliv kwnpptlpng nlsyyivrwq rqpqdgylyr
661 hnycskdkip irkyadgtid veevtenpkt evcggdkgpc cacpkteaek qaekeeaeyr
721 kvfenflhns ifvprperrr rdvmqvantt mssrsrnttv adtynitdpe efeteypffe
781 srvdnkertv isnlrpftly ridihscnhe aeklgcsasn fvfartmpae gaddipgpvt
841 weprpensif lkwpepenpn glilmyeiky gsqvedqrec vsrqeyrkyg gaklnrlnpg
901 nytariqats lsgngswtdp vffyvpaktt yenfmhliia lpvaillivg glvimlyvfh
961 rkransrlgn gvlyasvnpe yfsaadvyvp dewevareki tmnrelgqgs fgmvyegvak
1021 gvvkdepetr vaiktvneaa smreriefln easvmkefnc hhvvrllgvv sqgqptlvim
1081 elmtrgdlks ylrslrpeve qnnlvlipps lskmiqmage iadgmaylna nkfvhrdlaa
1141 rncmvaedft vkigdfgmtr diyetdyyrk ggkgllpvrw mspeslkdgv ftthsdvwsf
1201 gvvlweiatl aeqpyqglsn eqvlrfvmeg glldkpdncp dmlfelmrmc wqynpkmrps
1261 fleiigsikd emepsfqevs fyyseenkpp epeelemele mepenmesvp ldpsassasl
1321 plperhsghk aengpgpgvl vlrasfderq pyahmnggra neralplpqs stc
```

FIGURE 2

```
1 gctcattcat ttccactccg catttctgcc cctcgccggc ctcgcccgcg cccgggactt
 61 cggaccagtc tcgccaactg cgtcgcgctc tcccgccgcg taggctccgg tggtcgttcc
121 ctccggggat cgggtggcgt ttgtcctcgc ctgcggcgat ttgggctttg ctcctcttc
181 tgtacagttt tcctccttct tctgcatctc tgcgtttgca aatggaggcc gacgacgccg
241 acagecegee ceggegege eggetteee gaeteegeeg eecegtggge egetgetgee
301 ggcgctgagg ggccgccccg cgccaccctc cttgtccacg ccgctttccg aggatcgtcg
361 cctgcgctct tgtttttgga cgagagtgag gactgagttg gagacttttt ttttcttttt
421 ttcttttctt ttttttttt ttttctattt ttgagaaaag ggaatttcgt cccaaataaa
481 aggaatgaag tetggeteeg gaggagggte eeegaceteg etgtggggge tegtgtttet
541 ctccgccgcg ctctctctct ggccgacgag tggagaaatc tgtgggcccg gcattgacat
601 ccgcaacgac tatcagcagc tgaagcgcct ggaaaactgc acggtgatcg agggcttcct
661 ccacatcctg ctcatctcca aggccgagga ctaccgaagc taccgcttcc ccaagctcac
721 cgtcatcact gagtacttgc tgctcttccg agtcgctggc ctcgagagcc tgggagacct
781 cttccccaac ctcacagtca tccgtggctg gaaactcttc tacaactacg cactggtcat
841 cttcgagatg accaatctca aggatattgg gctttataat ctgaggaaca ttactcgggg
901 ggccatcagg attgagaaga acgccgacct ctgttacctc tccaccatag actggtctct
961 catcttggat gcggtgtcca ataactacat tgtggggaac aagcccccga aggaatgtgg
1021 ggacctgtgt ccagggacat tggaggagaa gcccatgtgt gagaagacca ccatcaacaa
1081 tgagtacaac taccgctgct ggaccacaaa tcgctgccag aaaatgtgcc caagtgtgtg
1141 cgggaagcga gcctgcaccg agaacaacga gtgctgccac ccggagtgcc tgggcagctg
1201 ccacacacg gacgacaaca caacctgcgt ggcctgcaga cactactact acaaaggcgt
1261 gtgtgtgcct gcctgcccgc ctggcaccta caggttcgag ggctggcgct gtgtggatcg
1321 cgatttctgc gccaacatcc ccaacgctga gagcagtgac tcggatggct tcgttatcca
1381 cgacgatgag tgcatgcagg agtgtccctc aggcttcatc cgcaacagca cccagagcat
1441 gtactgtate ecctgegaag geeetgeee caaagtetge ggegatgaag agaagaaaae
1501 gaaaaccatc gattcggtga cttctgctca aatgctccaa ggatgcacca tcctgaaggg
1561 caatctgctt attaacatcc ggagaggcaa taacattgcc tcggagttgg agaacttcat
1621 ggggctcatc gaggtggtga ccggctacgt gaagatccgc cattctcatg ccttggtctc
1681 cttgtccttc ctgaagaacc ttcgtctcat cttaggagag gagcagctgg aagggaacta
1741 ctccttctat gtcctagaca accagaactt gcagcagctg tgggactgga accaccggaa
1801 cctgaccgtc aggtccggaa agatgtactt tgctttcaat cccaagctgt gtgtctccga
1861 aatttaccgc atggaggaag tgaccggaac caagggacgc cagagcaaag gggacataaa
1921 caccaggaac aacggagagc gagcttcctg tgaaagtgat gttctccgtt tcacctccac
1981 cacgacetgg aagaacegaa teateataae gtggcaeegg taeeggeege eggaetaeeg
2041 ggatctcatc agcttcacag tttactacaa ggaggcacca tttaaaaacg ttacggaata
2101 tgacgggcag gatgcctgtg gctccaacag ctggaacatg gtggatgtag acctgcctcc
2161 gaacaaggag ggcgagcctg gcattttact gcatgggctg aagccctgga cccagtatgc
2221 tgtctatgtc aaggctgtga ccctcaccat ggtggaaaac gaccatatcc gtggggccaa
2281 aagtgaaatc ttgtacattc gcaccaatgc ttcagtccct tccattcccc tagatgtcct
2341 ctcagcatca aactcttcct ctcagctgat tgtgaagtgg aatcctccaa ctctgcccaa
2401 tggtaacttg agttactaca ttgtgaggtg gcagcggcag ccccaggatg gttacctgta
2461 ccggcacaac tactgctcca aagacaaaat acccatcaga aagtacgccg atggtaccat
2521 cgacgtggag gaggtgacgg aaaatcccaa gacagaagtg tgtggtggtg ataaagggcc
```

Figure 3A

2581 atgctgcgct tgccctaaaa ctgaagctga gaagcaggct gagaaggagg aggctgagta 2641 ccgtaaagtc tttgagaatt tccttcacaa ttccatcttt gtgcccaggc ccgaaaggag 2701 gcggagagac gtcatgcaag tggccaacac gaccatgtcc agccgaagca ggaacaccac 2761 ggtagctgac acctacaata tcacagaccc ggaggagttc gagacagagt accettett 2821 tgagagcaga gtggataaca aggagaggac tgtcatctcc aacctccggc ctttcactct 2881 gtaccgcatc gatatccaca gctgcaacca cgaggctgag aagctgggct gcagcgcctc 2941 caacttegte tttgegagaa ceatgeeage agaaggagea gatgatatee etggteeggt 3001 gacctgggag ccaagacccg aaaactccat ctttttaaag tggccagaac ccgagaaccc 3061 caacggattg atcctaatgt atgaaattaa atacgggtcg caagtcgagg atcagcggga 3121 atgtgtgtcc agacaggagt acaggaagta cggaggggcc aaactcaacc gtctaaaccc 3181 agggaactat acagcccgga ttcaggctac ctccctctct gggaatgggt catggacaga 3241 tcctgtgttc ttctatgtcc ccgccaaaac gacgtatgag aacttcatgc atctgatcat 3301 tgctctgccg gttgccatcc tgctgatcgt tggggggctg gttatcatgc tgtatgtctt 3361 ccatagaaag agaaataaca gcaggttggg caatggagtg ctgtatgctt ctgtgaaccc 3421 cgagtatttc agcgcagctg atgtgtacgt gcctgatgaa tgggaggtag ctcgagagaa 3481 gatcaccatg aaccgggage teggacaagg gteetttggg atggtetatg aaggagtgge 3541 caagggtgtg gtcaaggatg aacccgaaac cagagtggcc atcaagacgg taaacgaggc 3601 tgcaagtatg cgtgaaagaa tcgagtttct caacgaggcc tcggtgatga aggagttcaa 3661 ttgtcaccat gtggtccggt tgctgggtgt ggtatcccaa ggccagccca ccctggtcat 3721 catggaacta atgacacgcg gtgatctcaa aagttatctc cggtctctga ggccagaagt 3781 ggagcagaat aatctagtcc tcattcctcc gagcttaagc aagatgatcc agatggctgg 3841 agagattgca gatggcatgg cctacctcaa tgccaacaag ttcgtccaca gagaccttgc 3901 tgctaggaac tgcatggtag ccgaagattt cacagtcaaa attggagatt tcggtatgac 3961 acgagacatc tacgagacgg actactaccg gaaaggcggg aaggggttgc tgcctgtgcg 4021 ctggatgtct cccgagtccc tcaaggatgg tgtcttcact actcattctg atgtctggtc 4081 cttcggggtc gtcctctggg agatcgccac gctggctgag cagccctacc agggcttgtc 4141 caacgagcaa gttcttcgtt tcgtcatgga gggtggcctt ctggacaagc cggacaactg 4201 ccctgatatg ctgtttgaac ttatgcgcat gtgctggcag tataacccca agatgcggcc 4261 ctccttcctg gagatcatcg gcagcatcaa ggatgagatg gagcccagct tccaggaggt 4321 ctccttctac tacagcgagg agaacaagcc tcccgagcca gaggagctgg agatggagcc 4381 tgagaacatg gagagegtee eactggacee tteggeetee teageeteee tgeetetgee 4441 tgaaagacac tcaggacaca aggctgagaa tggcccgggc cctggcgtgc tcgttctccg 4501 cgccagtttt gatgagagac agccttacgc tcacatgaac gggggacgcg ccaacgagag 4561 ggccttgcct ctgccccagt cctcgacctg ctgatcctcg gacacaccga agcacgcgcc 4681 taacaatcta ttcacaagcc tcctgtacct cagtggatct tcagacctgc cattgctgcc 4741 cacgggagac ggcttctctg cagtaaacac atttgggacc ttccttttt caatatgcaa 4801 gcagcttttt atttccttta cccgaaccct taactgacat gggcctctgc aaaccttaat 4861 gacaacactt aatagcaaca ggacactcga gaattgagtc tcttcgttct ctgccttttt 4921 ctctcctctg ccttccctct ctgccctctc cccttccact tccacgctct cct

Figure 3B

ID 1: 3727 ID 3: 4211 aa : 1243	ctOg ttt gaa ctt atg cgc atg tgc tgg cag tat aac ccc aag atg cgg ccc tcc ttc ctg 3786
ID 1: 3787 ID 3: 4271 aa : 1263	gag atc atc ggc agc atc aag gat gag atg gag ccc agc ttc cag gag gtc tcc ttc tac 3846
ID 3: 4331 aa : 1283	tac age gag gag aac aag eet eec gag eea gag gag etg gag atg gag etg gag atg gag etg gag atg gag atg gag atg gag atg gag etg etg etg etg etg etg etg etg etg et
ID 1: 3907 ID 3: 4380 aa : 1303	cct gag aac atg gag agc gtc cca ctg gac cct tcg gcc tcc tca gcc tcc ctg 3966
ID 1: 3967 ID 3: 4399 aa : 1323	cct gaa aga cac tca gga cac aag gct gag aat ggc ccg ggc cct ggc gtg ctc gtt ctc 4026
ID 1: 4027 ID 3: 4499 aa :1343	cgc gcc agt ttt gat gag aga cag cct tac gct cac atg aac ggg gga cgc gcc aac gag 4086
ID 1: 4087 ID 3: 4559 aa : 1363	agg gcc ttg cct ctg ccc cag tcc tcg acc tgc tga 4122

FIGURE 4

	_		agagtggccatcaagacggtaaacgaggctgcaagtatgcgtgaaagaatcgagtttctc 60
	5: 6:		agagtggccatcaagacggtaaacgaggttgcaagtatgussssssssssssssssssssssssssssssss
	5:		aacgaggcctcggtgatgaaggagttcaattgtcaccatgtg0gtaagaagccaagatgag 120
ID	6:	56572	aacgaggcctcggtgatgaaggagttcaattgtcaccatgtg0gtaagaagccaagatgag 56513
		121	acatggacagaaagtatggacagaaaggaccaccctgtatgtccttggccagctacggaa 180
ID	6:	56512	acatggacagaaagtatggacagaaaggaccaccctgtatgtccttggccagctat gud 00101
		181	ttgttgccttgccctcttcccagtgggtagtttccccgttgcattcttgccacccac
ID	6:	56453	ttgttgccttgccctcttcccagtgggtagtttccccgttgcattcttgccacccac
ID	5:	241	cccttgaggtgggagcctcgccctcgccctccaccagaactctgctcctggctacayyc 300
ID	6:	56393	
	-	301	cccagcaccacccagttccgagaggcgtaggtcatcatgtgggatgcccccctcccctc 360
ID	6:	56333	cccagcaccacctcgagaggcgtaggtcatcatgtgggatgccccctcccctc 56274
		361	tgagtcctttcttgattcctccag0gtccggttgctgggtgtggtatcccaaggccagcc 420
ID	6:	56273	tgagtccttttcttgattcctccag0gtccggttgctggtgtggtatcccaaggccagcc 56214
		421	caccetggtcatcatggaactaatgacacgcggtgatctcaaaagttatctccggtctct 480
ID	6:	56213	caccetggtcatcatggaactaatgacacgeggtgatctcaaaagttatctceggtctct 56154
ID	5:	481	gaggec 486
ID	6:	56153	gaggec 56148

FIGURE 5

```
1 gaattccaga tggaagctga cttcctgctc agccctatta aaaaaaaaca caggctttcc
 61 tgcctctgag ccccttcgcc acaaataact tgagtgccat gcacggaggt gcccacttgt
121 ggcttaggtt ctctcagacc ttgtttgtcc ttcagcccct tggggaggag cccaggctac
181 cacctgctgt ccctaagcct aggacccagt ggagaccatc gaattgcaga tttagacaga
241 attaaccatc acagggeete ataccatect ttttaaagga ccaggeettg atggagaetg
301 cagtcgccaa cccccatggt gcttttgcta ctatggaaac actgaaataa ccaacacaca
361 cactggttgt ggatgccact gaacacacac acacacacac acacacacacacac
421 tggttgatgc ctctgaaccc caaaaggtca gcctggaagg aatggtggct gctctgtcct
481 ccatctcagc cgcacatctg aagtcacccc agccacaggc acctgtcatt gtcacagctg
541 gtccctatgg gcttactctt tcctcacgat gctcttattt ttagtcagac accaaagcgc
601 tttatttatt tttagttaga cacatttggc acatttcaag ttttccaact tgtattcgat
661 aaagggaaac aaaggattcc tgtcacctgt cctaattgaa agcttctttg ataaatactt
721 tcggacagtg attcatacta tcagccttcc aaaaggagga aggaaaaaaa aaaaaaagaa
781 aagaaaagag cattettttg agacactett atteeettge acttetgatt tgttttttt
841 tttttttt ttattteggg tecagagatg gaatggetea aattacattt gaegteetea
901 ggaaaccata ctcttggtaa aagcagtgcc tgtctcaaat gaaatatggg catggaaatg
961 tgctgccccc tcttggactc acgtctttcc ctacatttct ctcatcagcc agcagttgct
1021 gggagtcagg cgccattggg aaatgcccac tggatcccag agtgtggcct gcctttatta
1081 gtaatgtttt gagtttgccg gaggacagac tcttcatttt attggagccc ctagttgtgt
1141 aaatcttgtc ttgacaactg gtatgtagac agatggtgaa atgcaaggat tctaacaaac
1201 agcctttaga ttaaggtgtt ggctgggacc aacagtaaaa tgagagacca ggcgaacctg
1261 cagtcctccc cagggttcga tgattctacc acattttctg gctgactacc caactctatt
1321 ccaaggcagt cttgatgggg aatgaggctt agcccagcaa aacaagacct tctaaccttg
1381 etcccggagt tgtettteet aatttaaaac aaacaaggat gtagttteet caaagetgaa
1441 tgtggttcta aagtgtgtga aatgtgtgtt gatgggtttt taatgatcct agaggaagct
1501 ggcttctcgg tctttctact taatctcaac attttctaag ccgttcttta gagctgcagg
1561 ttcccacage agetgeaaga etgtgtatee tateagteaa agecagatgg tagteetgag
1621 atggtgggcc attctgttga aaagctttct gtcccctgaa gtttttctcc ctaggaacca
1681 atcctgatga tgggccacga ccaatacact cagcagttgc caggcacagc tggatcccct
1741 ctccagtgct gctacctact ctagaggccc tggggtccag cgacttgatg tagcatcctg
1801 atcttttaca gactggaaag tgtggcaact gagaagtatg cgctgagagt caggtgaggg
1861 actcaaaccc tcagtcatac tccagataaa actgatcagg acgatgctca accctacctg
1921 cageccaage tgagatgagg etceetect etcagtetga catgetagee tececcagga
1981 ggaggccaca catttttcat tttagaaata tagatcaaga agaaattgta aagaaagaga
2041 actecttgca aateteacta gggttgcctg atgctgacat etteaatgte caatecaatg
2101 tactaacatc agtacaatta agaaagagag aagcagagag agggggagaa ggaagggaag
2161 gagaacggga tggaggggtt gaggaatgag tatgtgtgca cgtgcacaca gaccgctcta
2221 tacaatttag accagtgcaa ggcttcctgg aattgcctcc acctcaaaac gccttcccct
2281 gctactccca ccttagcttc ttccgcactt tcttccccca ttttaacacg tggtgtcctt
2341 ttcagactca tttggctgta ataaaatatc cagaaaacaa acaaacgaca aaggataaag
2401 gagtttattt ccgtttacaa ttccaggtta cagtccatcg tggtgggaaa gtcagcagca
```

FIGURE 6A

```
2461 ggaacttcag agaattggtc gcatcacatc cacagtcaag agcagagaga aatgcataca
2521 tatttgetgt ettgtttget ttetcatgtt cagettggat ttetceatte ttttatagtt
2581 caggactcaa tgcctaggga atgacactgc ccatagtgaa ctgggttecc ccacatcaat
2641 taacaagaat tgttgaggaa ttgggttggc ttgtggacat ggttttttt tggaggatta
2701 tettagttaa getaattgat ataageagaa eeatteeeta ggeaatgatt ggeetgtggg
2761 catgtcaaca tttcctagga atgttggcct gtgagtatgt ctgtgcccac aagtaagaca
2821 attggctaat tgatatgaga aggcccagcc cactgtaggt ggtaccattc cttaggctgg
2881 agateettga getgtaggag agaggagaaa teaaactgag cacaagcaag tgagcatgtg
2941 tgcatctctc tgctctttga ctgtggatgc tatgtgactg ttgtttgaag tcctgcctca
3001 actttcccac agtgatgggc tataacataa ttatatgctg aaatgaattc ctctcctc
3061 taagttgctt tcgttgttgt ttttattaca gcaacagtta aagtagaaca cttatttaaa
3121 acctatggaa ggatatatag atagtttaca gctttagagt tgttagagtg gagaacacta
- 3181 ctgtaaacag tagtttccag ttctgagatc agtggccagg tgtatacatg ttactcagtc
 3241 cactttcagc tctaaaaaaa aaaaaaattg gggctcagcg gttaagagca ctgactgctc
 3301 ttccaaaggt cctgagttca aatcccagca accacaggt ggctcacaac cacccataac
 3361 ataacaaggt ctgatgccct cttctggagc ttctgaagac agctacagtg tactcacata
 3421 taataataat aaataaatct ttttttaaa tctatcacca tattgcaaag tagtgtcttc
 3481 cattcctatc aatatgtgag acccagtttc tcattctttc tttgtttgtt tgtttaagat
 3541 tttatttatt cattgtatgt atatgagtac actgtagttg tacagatggt tgtgggccat
 3601 catgicattg ctgggaatta aattcagtac ctccgctggc tccggccccg ctggctccag
 3661 cccaaagatt tatttattgt tagacctttt aaatatatca cataatagtc tttatacaat
 3721 agataagtgc tttctcagta ataacctctt aacagagttt ttattttta tttttaacag
 3781 agtttttaaa agagccaaca ttcttaactc tgtggctgta tttttgcttg tcttgtttta
 3841 aaacaagete ttgggtggtg gtagtgcaca cetttagtee cagcagatae tggcagatee
 3901 ctatgaactg gtcgagagag caagttacag aaaagtcaag gttacacaga gaaaccctgc
 3961 taactaaggt tgagatctgc tatgtctaga tggcttatct gagctcagtg caaaatggag
 4021 gactetatac catetggget teceettete tgacettgte taggggaete cetataetet
 4081 ctacctggga aaggtcaagt agcctcggaa gaccaacaaa cttcctcttt tccgcagaag
 4141 aacccacca acaagtaccc gggattcctg aaatgcctct ccatacaaat gaggaattcc
 4201 aagaacttta aactctaacc aatgattttc atttaccctg aaaactcctt cacactctcc
 4261 aaggteetgg tttaccccaa ataaagtgta ttcgtacaag ccccacccta gtagaggtat
 4321 ggaggtatgc tcacaaacca agatcggcta agagagetgt tttcattgaa gattgttgga
 4381 gaaggeette ttetaaaaga getgtaacte taagateett egggaaggee tteteteet
 4441 tecetecce tececeact ageacteact eccageagga cectaateet gtataaceet
 4501 cccccccc ccattctgga cactgtttca tccttcccac ccagtgtgca gtggcatctg
 4561 gatacetece tgactatgtt teatacagte aattetgagg aageeceag attageaagg
 4621 ctgaggttct ctggggccta tagaacttgt tgccaggtga tagaacttgt tactgggtag
 4681 tgtgggctgg tttgagcaaa cctgggtatc tttggtttca ggttttgggc ccttccggca
 4741 gcacctagtg aattccagct gggaagccgt gaaggtaaat cctgccgttt gcccccccc
 4801 cccccccc ccgggccaac ctggttcctt ctgtggctct tgggaaaccc caatgccaat
 4861 gcgcgggact cctaagaaac cagagtcacc ttggaaggaa ggcaagcagt gggcccctgg
```

FIGURE 6B

```
4921 aagaaaggct tgtatttggt cctggaatgg tgtgacttgc ctggtcaggt acttctctcg
4981 tttgtccagg gacactccta ggtgggacca aggcccatgt aggctctact ctacgtaggg
5041 ctagattett geeetetett eetttggatg tggggtetgg ggaaagteat tttcaccage
5101 tettgteete acetaegeat geggaagtga taacatggat gtetetggee teeactgaca
5161 gctcagggtg agggcagcct tgtccacact gctctgtgtg agcccagcat ggggcgtggg
5221 tgagaacctg gccagtgctc gtgactgtcg acagcacgct tgcttttgag gacatagcta
5281 accaggagaa gggaagteet etgacegeee actgtgeata ggagggeagg acteeetgge
5341 ccaccccac ctccctaggt caactgtctg ccatcagtcc tcatgtgggt gtcacttaga
5401 ggctctgcga attgaaagct gcctgttcgc acttggcttt caacttcaca ctgatgttgg
5461 accaagccaa atgtggggcc tggagtctat tctcagagtt tcccaggcca gctgagaaac
5521 gcagcaaagc tgctagcgtc atgcactcac agccaccgtg gcactgactt tgtggtctga
5581 caacgcagag gcaggcagga gactcttgat ccttgagtta gcatttgggc ttttgctttt
5641 ccaatcataa aaaagcccag agacccttgg actcattgcc aagccttgct ctggtacaca---
5701 aggtaacaga gaggccagga ccagactttc atgagctcct ggctttctgc aaccagtatt
5761 tgatcagcag gacttetgee aagteetcag tagteecaga ceettttgtt tetttetgea
5821 gccgtaaaca atggaaaaga gccagactgc ttctggtttc tggtttgcct ctcagtttcc
5881 ccagttgcaa gtagtggcat tcaaaaaacct tgctcgagtt ttgatgcctc cgtttcccaa
6001 agttgaggaa gtcacatgac atcccaaaga cctcttgggc atgctgatag agctcacagg
6061 ttgtccattc ccaccaggag gcttttctgt ttgtctggta cacagctgca gacacatggg
6121 atgagggtca gatcagcaca ggaagtggca gaagggagag ggttacctga ggtggttggg
 6181 aaaccccagt gcttgggact gctagtaatc aaagtcacct tggagggaag gcaagccagt
 6241 gaccactgga agaaaagttt gtctttggtc cttgggtggt gtgacttgac tggtcaggta
 6301 cgtcttccat gtgtgcagta aagaaaagtg gctaaggagg ctcaaggctc attaagcttg
 6361 gtgaagcaaa ccagacagac acagggactg gggcttgcct gaaggcatat agtcagacat
 6421 gcagacagcc aaggatagct ctgaaaagtg cacacacata cacactcaca tgcactatac
 6481 acacacaca acatacacta ttcctacaca catataccac aaacactata cacataccac
 6601 cacacaca tgcactacac acacatatat acacacatac actctcactc aggagctata
 6661 ggctgaggaa agcaagcata cactggaatg gcaggtaagg acaaaatctg tgttaagggc
 6721 tggaggtatg gcttagttag tagagaactt ggttgcatgc atgtgggtct gggtaacatc
 6781 ccagcactac ataaaatcag gcatggtgtt atacctagta ctagggaagt agaggcagta
 6841 gaattggaac ttcaaggcta tgctctgact gctgcagact ctcatggagt ttttgtgaga
 6901 atttaaaatt caaattctgg gtttggcatg gtgacccatg cctttaatcc cagccagcat
 6961 tcaggaggta gaggcaggca gattactgtg ggtttaaggc tagcctggtc tgtacagtga
 7021 gttccaagac aggaatatat agagagagac cctgtttcag aacaaacaaa aataaaactc
7081 aaacttetta caaagaaatg tgaactatca gtteetagee taagateace tgatacacaa
 7141 gaaaataaaa taccatgtta aaaaaaatca gtagatgccg ttttaaaaaa cagaattata
 7201 accaggcagt ggtggcacat gcctttaata aacccagcac ttgggaggca gaggcaggca
7261 gatttttgag tttgaggcca gcctggttta caaagtgagt tccaggacag ccagggctac
```

FIGURE 6C

```
7381 aaattagaac tatagctgac ttaaaagaca gcttagatct gtggtcagtg aaagatactg
7441 ctcacaagag actgtatcac ttgagtccac ttgcattaat gtccctagta agtaaatata
7501 ttgagagagg aagtaggtta gtgataggct aaggtggaag gacacagtaa atgaatgtga
7561 agtitectia aagtacatti attiattigt gtgaccatgt gtgtgtgtgt etgtetgtet
7621 gtgcacacca tggcttgccc atgaaggtca aaggacaaca ggtaggaagg agctagaact
7681 ctccttcccc tgtataggac ctagggatgg agctcacccc agacatcggg tttgggcatc
7741 aggaacettt accccgagee teteacatae ttetttagga ttetttaggt tgtaatteaa
7801 aggetetgge accgattgeg gtgatggttg gttgtataac tettgatggt gatggttata
7861 taactgagca tactgaaaga tgtggagtta aatagggtaa gtacgtggaa tgtgaataag
8041 agataggtga tagactttac ccacatgtac acatatatag ctgttcagaa acagacgaag
8101 agaaattagt aaactagaat atagatatgg agatattatt caaaggacaa tataaagatg
8161 ggcaaacaag catagagggg ataatgtaaa tagtaaagga agtttctgtt taaatagaat
8221 tccagaggaa aataacagcg agaatggaag aaaaccatct tcaaatatac agctacaatg
8281 tatgggattg gaataggttt ggtcccatag actcctgtgt ttgaatgctt ggcccacaag
8341 aagtggcact gttaggaggt gtggccttgt tggatgtttg accttggtgg aggaagtata
8401 acactgtagg ggcagacttt gaagtctcct atgctcacgc tatgcccatt gtggcacacg
8461 gteteettte tgttgeetgt ggatcaagat gtagaactet tgggetggtg agatggetea
8521 gtgggtaaga gcacccgact gctcttccga aggtctggag ttcaaatccc agcaaccaca
8581 tggtggctca caaccacccg taatgagtte tgatgccctc ttctggtgtg tctgaagaca
8701 ttaaaaaaaa aaagatgtag aacteteage teetteteea gtgetatgte tgeetggatg
8761 ttgccttgct tcctgctctg acaataatgg agtaaacctt tgaaattgta agccagcccc
8821 caattaaatg ttttccttta taaaagttga cttggtcatg gtgtctcttc atagcaatgg
8881 aaaccctaac aaaggcacaa tggttaagaa tattccagag ggactggaga gagatggctc
8941 agtggttaag agcactgttc ttccagaggt cctggagttc aatccccagc aaccacatag
9001 tggctcacaa acatttgtaa tgggatctga tgccctcttc tggtgtgtct aaagactgta
9061 ctcacattca taaaataaat aaatctttaa aaaaatttcc agaactgatg aaatacttga
 9121 atccacagag atagaaataa agaaaatcca cacctaaaca tagtagagtt ggagactgca
 9181 aaagactgat taaggcttta gagtagccag agaggagatg gcttacttac aaaaatggat
 9241 actctaacta gtagtctagg gctaactttc tcaaaaatag caatacaagc tcaaaagcag
 9301 tacagtaata acctacagaa tgccaaaatt gtagctgctg aacagaaacc gtgtagctag
 9361 gagatcattc ctcgagaata aggctggggc tggagagatg gcttcgtggt taggagccct
 9421 tagcggttat getetteetg aggacetgeg teaatteeca gegeecaegt caggtagttt
 9481 ccaactgcct ttgatcccag ctccaaagtg aacctctaac ctttgggagc acttgcgttc
 9601 ttttttttt ttttaaagaa taaggctgga gtaaaaacat tttcacaaaa ataaatgtca
9661 ggtttactct cagaaggatg acacaagggg actgtaaaaa ggacacttgt cagaagagaa
 9721 gaaaattatc acaaaaatgg tgtcttagtc agggttttat tgctgtgaag agacactgtg
```

FIGURE 6D

```
9781 aacacagaat tgggggtggc ttatagtttc aggggttcag tccattattg tcatgacaag
9841 aaacatggag gtaggcaggc agacaaagga caggagaagg agctgcgagt tctacatctt
9901 gatccacagg cagccatagg agactatatg ctatactgtg catacctcaa gcataagaga
9961 cctcaaagtc actatgggga atgcttgccc catagtgact caatttctcc aacaaagcca
10021 tacctatcca acaaggccac acctcttaat atagtgctga atagtgctgc tccctatgga
10081 ccaagcattc aaacacagga gtctagagtc ttatgagggc cattcctatt ccaaccactg
10141 cagatggtat agaaatcact gggaagcctg gcagtggtga cgcatgcctt taatcccagc
10201 acttgggagg cagaggcagg tggatctctg agtttgaggc cagcctggtc tacagagtga
10261 gttccaggac agccagggct atacagagaa accctgtctc aaaaaacaaa aaaacaaaaa
10381 gagagagaga gagagagaga gagagagaga gaaagaaatc actgggaaat ggtgagtctg
10441 agggtagaaa tetgtaccag caccaggcag tgatggcaca cacttttaat cccagtactc
10501 aagatctggt ggatgtctga gttaaaggcc agccttatgt acagagtgag ttccagatca
10561 accaaggeta catagaaaaa ceetgtettg aacateaaaa caataaacaa acataaagte
10621 catatcagca ttgtttgtaa catgtaatag tagtagttcg taattccagg atggaactaa
10681 aattcacaac agtcaaaggg teggtggtet teteceteca gtgcccctca ttgtcggtga
10741 acttcaaget catetecace atetetteag tgacaggtte tggagcagge tetgeteaat
10801 cttcttgctt ttaataggac caaaggatgg tgactagaca cacctgcatc ggcacctgga
10861 aagtgaggtt cccgagatgg ctggctatgc ccaggctctt ggtaccccag ttggccttcc
10921 ttttggcccc tggactctag gtcttgcatc tattctccct tccttgtgtt cttcctttgg
10981 acagagttgg ttgcaaactc tttgctgtca atgtgcaggg ttgttttgtc cccacgggtc
11041 aacttaggtt atcctgtgtc ctgtctaaca cctcagtgga ctctatttt ggttcagcat
11101 cttcctattt ggttttcagt agtcactgaa agtgctggca aacagttaac agtgtcttta
11161 gtaggaatgg ttatctaagg gaccatacta ggtaaagggc tgagatactt catatacata
11221 gcataccetg actgetgtaa agatagaaaa acagactgag atgeectaca cagtetgtgt
11281 ctgtataagc tacacattt ctgtaatggc caacatcaat ttatctttat cccatagagg
11341 gcctggcttg gagcatgtgt tccagggact gaatcatttg aggtaggagt gaatactttt
11401 ctttctatcc tcttgcattc ttccagtaaa attaaagctt atcgctatca tgtatgttcc
11461 caagcaatgt ttaattatct gtaaaaagct ttgtatctga gactgcatgg attacagatg
11521 ggaaaggaaa aaaaagtgtt tatttccaca gtgtctcact tccaagaatg gggtgagcta
11581 ttgacaaacc atcacacgaa gacattttt tttaaagatt tatttattta ttatatgtaa
 11641 gtacactgta gttgtcttca gatacaccag aatagggcat cagatctcat tacgggtggt
 11701 tgtgagccac catgtggttg ctgggatttg aacttcggac cttcggaaga gcagtcgggt
 11761 gctcttaccc actgagccat ctcaccagcc ccgacattat tttttttgtt gcagccactc
 11821 ataaatggga gaagaatgtt gaaaggaaaa gaaaatgtag gggctggaga gatggctcca
11881 tggttaatag cactgactgc tcttaccgag gtcctgagtt caattcccag caaccacatg
 11941 gtggttcaca accatctgtt acaggatctg atgccctcct ctggtgtgtc tgaacacagc
 12001 aagtgtgtgc tcacataaaa taaataaatc ttaaaataga aaaaagaaaa gaaaatgcag
 12061 aaaaataata tgaagtctaa aagttcacag cgaaagaggc attttctgca aagttcccaa
```

FIGURE 6E

```
12121 gcaagtgact ccatgctgtt tgttgatcag cattgtgagc cctcgtgttt aacattgagc
12181 taccccatac tecacaagee caaegeteet teagtgacat atgeageage tgcateatea
12241 ttgcccatga tctagattct aagctctagg tgtggtggtt tgaataagga tggctcccat
12301 agactcatgc cagggaatgg cattaggagc tgtggcctcg tgggaggaag tatgtcactg
12361 agggtgggct aataatatag aagttagtac caaggactgg ggtttttgct gccctaggct
12421 ggaccaagtt tcttggtgga atgtggactt tggattagga aaatagttga atggttcaag
12481 tagagcatca caggccatac tggtaagacc atggaagatg gtgctgttgg tgacatgaat
12541 tatggggtac acaggtttta gaggagaaga attgtaggcc tagattttc aaaccctact
12601 tttaataagg gttcttaaac gctttatcct ctcttctagc ccaccaccca ccagagggag
12661 tggaaaggaa aggttaatag agcaaaqgag ggtgtggatc tgtttagaaa aagttctttg
12721 gagcaaatcc aatctgtgtt accaggatat cagcagtaca gttcactcag aacagcagca
12781 gcagctcgat ccacttgcaa acaccattca tgaatcagca atggcaggtc aatccagaag
12841 aaacctcgag getetgecaa gtacaaggaa geageageaa gaagetgeca gaaagaacae
12901 caccagaagt tettttgtgg catttetgte tatgaagtea tatcaaatga tgactagcaa
12961 agaatggcaa ggcaaggtgc tggtgagatg gcttagcagg taagagcact gactgctctt
13021 cccaaggtac tgagttcaaa tcccagcaac cacatggtgg cttacaacca tcgtaatgag
13081 atctgatgcc ctcttctggt gtgtctcaag tcaactacag tgtacttatg tataataata
13201 ccagtgtcag caaaacccaa tgataaccag caaatatata tatcctttcc aaacatcaca
13261 ttcttgttct ctcaagtgtc agctttagca aaacatcaca tgccctttgc ctagactgct
13321 totagaaaac caccgtgtat ctgttctcag caaaacatcc tcccacatgt ctgcttcagc
13441 aaagaagcca gaaatttcca attcaaagag tactagtatg caacctagag accattcttg
13501 tgatattttg acaaagatca tgggtacatt ctgctcttgt catgcacaca gacacacaaa
 13561 tctgcctgag gttaaataga agagttatga atgaacatct ttagaagatt tgtctctaag
 13621 agatttccaa aaagtttagt attgactttg ttgcttggtt attagtgacc atacttatgc
 13681 agatotgtaa cgaagaggac caagctaaac aaggaacata cagaatgtac agtttgagga
 13741 gaaaaggagc ccagggaagt gtaatggagt caagtccagt gcttgaggag ataaacctga
 13801 tgttaaatgg aaaggagaag tggtgacctc aagccaggac tccacctagc taagcttcca
 13861 acttctgaga agtaatcaaa gaaaagttta gaactgggtg tagctgaatt accttgaatg
 13921 ttagcagcac tcatgagaca gaggcagcag gcaggtcact gagttcaagg ccagcctggt
 13981 gtacagatgg ggttccagga cagccaagct taggcagtga aggaaaccac tgaaaacaga
 14041 aagctggtga agatggattt gaatgaagag gcacattcca ggcccagcag cagcagaact
 14101 tggtagettt ggccatattg etetggettt agagtggagg gtacaaaaaa aagagttatg
 14161 gaateteet eegtgaetaa ggaaagetga tggggeeagg tgtgtgteag ggatgtttet
 14221 gcatggagac ccagagacct ttgcttaaag ttgtgcaggt aaaaacctgg attgttgtga
 14281 tagtttgaat gcttggccac agggagtggc actattggga ggtgtggcct tattgaacga
 14341 agcgtggcct tgttagagga agtgtgtcac tgtggaggca ggactttgaa gtcatatatg
 14401 ctcaagctct gttcagtgtg acatacattc tccttctgat gcctccagat caatatgtaa
```

FIGURE 6F

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14461 aacteteage tecteeagea caatgtetee ttggatgetg ceateettee egecatgatg
14521 ataatggagt gaacetetga aactgtaagt cageeccaat taaatgttat gagttgecat
14581 ggtcatggtg tctattcaca gtgatggaaa acctaactca gacgattgcc ccagaaagcc
14641 cccaagatgt tggatatgcc agagtcatgg gatttgtgaa gagggatgct gttaacaggg
14701 agtggaactg gcccaagaga aataactgtg ttgcagtcaa caaagttgaa aagagttgga
14761 gatctgaaga ctgctttgac atcaggcacg gagatgcaga gtttggagtt tacacagctg
14821 ttttttggtc ttgcttttgt ccagtatttc ccctttectc ccttttggga tggtgataga
14881 tatcctgtat atgttggaag tatgtgatct tgattttgat tttattccag atcatagtta
14941 agagettgee ataagtetta gaacagaett tggaetttta ageagggtta agaetgatag
15001 actatggaga cttttgaggt aggattgagt gcatttctgg attatgataa agctacaagt
15061 ctgtggggac tgggatgtag aatgtggtgg cttgaaaaag aatggccccc acagacacat
15121 acttgaatgt ttaaggggta tcattagaag gtgtggcctt gttggagtag gtgtggcttt
15181 attagaggaa gtatattatt gggtttgggg ggtggtgagc tttgggtttt-gtcttgtgt
15241 atgcctgtat gaggaggtca gatcttttga gactggagtt acaggcaatt gtaagctgcc
15301 atatgggtac tgggaattga acccaggtcc tctggaaaag cagccagttc tcttaaccac
15361 tgagccatct cttcagtccc gttccaatga atttttgaga agcttttcta gaagtgcctg
15421 aacccagaga gacaataaaa acagttgttc tcaacctgtg agttgagaca cctttggggg
15481 ttgcatatca gatatttatt tacattgatt cacaacaatt gtaaaacttt cagttttgaa
15541 gtcgcaatga aataatttta tggttggggg tgtcattaca acatgaagaa ctgtattaaa
15601 gggtcacagc attaggcagg ttgagaatca ctgcaacaaa agaagaattt tgtgccaggt
15661 ggtagtgcca tgtgtcttta atcccagcac tcaggaggca gaggcaggca gatctctgag
15721 ttcgaggcca gcctggtctt tagagtgagt tccaggacag ccaaggctat acagagaaac
15781 cttgtctcaa aaacaaaca aaacaaacaa acaaaaataa ggtatttgta aaacataccc
15841 tagatccgtt gtgctaagac ataacagcat tccaaatata catagcccaa gtagccaagg
15901 ggttagaget ettateaget ttgatgaget tgatataagg ggaattteee tttateecea
15961 aagatgaagt ggtcttaacc ttcttgcatg ctgtttgctt gttagttaat aggtttattt
16021 ttattttatg tatgtgtgtg ttttgcctga atatatgctg tgtaccttaa gtgtacttag
 16081 tacatgagga gtccagaaga gggcgccaca tcccacagaa ctggagttac agatggttgt
 16141 gagetgetgt gtgggtgeta ggaatcaaac ctgggteete cagtgetett aactgatgag
 16201 ccatctctcc agccccttcc atgattcttt aaaaagcagt catagtgaag agagtacaag
 16261 gttgtgcatc aggacagtaa cacccccaat ccatttctgt aacaagtcag agtaagatga
 16321 cagatettte aaagggacae cageaactgt etgggeeett eetgtaggte eeettaaact
 16381 tcactttagt ctggagaaat tccagggctc tcagattact ccagagagct agaaagagaa
 16441 gcttttcttg tctcgttttc cgtttgtgtt tataacataa acttttattt atttatttat
 16501 ttatttattt atttatttat tatatgtaag tacactgtag ctgtcttcag acactccaga
 16561 agagggagtc agatetegtt acggatggtt gggagecacc atgtggttgc tgggatttga
 16621 actogggacc tttggaagag cagtcaggtg ctcttaccca ctgagccatc tcaccagccc
 16681 tataacataa acttttaatt tcactgggaa gacattcaag cagaggtccc aagttctatc
 16741 actcagaaca catatacaga tctggacata ttgacatgca catgaaatgc aatggagata
 16801 gagagacaga aggatecetg gtacttgetg gecacceaga etggtagaac cageaggete
```

FIGURE 6G

16861 caggtagett eccaaceatt tetecatett tgggtecatt gttgeetgte tgaatatett 16921 tgcagatagt ttttagaggg gaaatacagc aagtaagcag aatggtgcag ggtagagcct 16981 gcacctggaa agtggagaaa catcctagag agacacagcc ttgcaaggct ggtccagggt 17041 gtgggcagtg tacagctgtg actgcagatg tcagcacaga tgctgggtac ctgattcatg 17101 gcaaccacag gttgggaggg cccctacaga tgttggagcc ccaggtctga caatcccagt 17161 ggggtgattt gtgacgtttg taataagatc agatgtgagg gtagagggtga gagagagggc 17221 ccaggtagcc ttctagacct gtctttggaa tctgagttca gactggacat tttgggggct 17281 catttccaga gtcactctcc tgtgctctgc tcccatattc atgagaagag cactcccatg 17341 ctggcagaac atgaggccca ggaagaagac atggggctct ccataactca accccagaga 17401 cetagtgcca agcaattatt geteatagca gecaaaaaca tgtaagaaac tgeeceatte 17461 tggcgaaaga gtaagatgca tttgactgtg actgtcaccc attgtcagga ggccaaagca 17521 tttctttagc agctcctcga gtcaatgaaa tactgagtgt actgaggacg agggcagctg 17581 atgteettte teatetgtgg-tetcagtgaa cagaggtcaa ccaggatcca aaaagcagta 17641 ttatgtggaa actcccagaa agaaaccaga aaggagtttg atggtcacga gactggacac 17701 actgccagag tcgcgtggct agcgtcagca aaagttttca agtgacttcc acggaagcat 17761 atttacgacg acgtacagaa gaagggcagc tacttaacag atgcccacct accttttaga 17821 acagctaata agtcacagat gcctgcggta ctcccagaac agaggggcct tagtagtcag 17881 gecteacaca ggaggeagga agaaaagcat geaggaatea aaceatagee taaagtataa 17941 gatgaacatc caggagccta aaccactcta aagaaaatta catagatcct ctatgtaaat 18001 taaggagcag gagagtgage tttaagttgt ttctgcaggt gcataaatta tgcaggcact 18061 teaggeecta tggagaactt aaccetecte etcagatget ggetgeacge ggaetteetg 18121 ccacaggacc cctgctatga agtgagtgca ggaaagaacg ttttatagtg aagatgcctg 18181 agagacttcc aggccaggtg atccaagtca acacctacag tgacaagtct tgttgatggt 18241 ttgtaccctt gaaatattat catgagaagg gcactctatg cctctagagt cttctgcccc 18301 caaccctaaa gcccagtctg atctgagacg agaaggagac agattccagg gaaggcacac 18361 getetacagt gtetggecag tgttecatag aaceggeaaa gteattaaac acaagaaaga 18421 actgtaggag atggaacaat gtgttgtgat gacctagatg gaccttaaag gactgctctg 18481 tgtgtgtgtg taactaagga acctgggtaa acgatgcggt ccttaccact cttctatcca 18541 ttaaaatgtt tatcatgtct cttcgtggtg gtgcacgcct tttaatccca gcactcagga 18601 agcagagaca agaggatete tgagtttgag gecageetgg tetetagagt teagggetae 18661 acagaaagac cetgeettga aaccaaccaa ccaaccaacc aaccaatgaa ccaccataa 18721 cccacagatt tttgttgggt gtgcttttgt tggaacctcc ctctctttc tcagttttaa 18781 gactccagaa ccgaagtgag aacagctggg catgttactg tgtgcttggg atcccagcaa 18841 tggggaagag gagacaagac tttcctggca cttattggta agctagccta acttacccta 18901 ggtgagetee gggeeagtga gagaetetgt attaaaaaaa aaaaaagtgg atgttaaaag 18961 acacctaagg tigtcetetg geetecacat geatgtacag acatatgeae acatgtgtgt 19021 gcacacatga ctgtttcctc ttgtttatca cctgtcctta tgatttgaga gaactgtagt 19081 aggettteag atacagaagt ggattggett ggttaaaaat ettagtteea etaetggeet 19141 gtgtaaaaga tggggaatet etgetgaget aagceatgea etatgagaae agtetetete 19201 caggecagae etetacaaaa aaaateecaa caacaacaac aacaacacca ecaecaacaa

FIGURE 6H

19261 cacctttgca ggaaggtgtt ggtaaaggcc ctagtttaaa aatggtgtta catatacaca 19321 ccatgaagtt cagagagtcc attcgcaaca ttatttgacc ttcagcacga tttgtttctg 19381 gaactttccc accecattct tgcctcgttc ccccaggtcc tggtgactgt tattattttg 19441 tatccatact gttgcacage aagtgtctag aactttctga atctgcagaa cagactcgct 19501 actgatttaa ccatggcctc ccctcccca cccttcccct ccccttggct tctgctgacc 19561 accactctac ttcccatctc tccctcgttg gctgttagct acttagtgga agtggaacca 19621 tattgacttt tgtgactggc ttacttggct tagtataatg ttttcaaggt tcaaccatgt 19681 cattgagtgc accagtacat tcctaaaacc ctggcactca ggaggctaag gtaggggaac 19741 ccagaccaat ggttttcaac cttcctcgtg ttgcggtgac ccccacaacc atatttctgt 19801 tettaettea tageagtaat tttgetaatg etatggatea tagtacaaat atttttggag 19861 atagaggttt gccaaagggg gtctcaatcc acaggttaag aacttctgat ttagactttt 19921 agttcaggcc aaattacaca ytgagaycct atctctttca tttcctaatt tgaaagaaag 19981 aaagagggag ggagggaggg agggaaggga gggagggaag ggagggaag ggagggagg 20041 aagggaggga gggaaggga ggagggaagg gagagagag gagagagaga gagagagaga 20101 gaaagaaaga gagaaagaa gggagaaaga gagaaaaggc taggcgtgat gcagctcact 20161 gcagetetgt gagacgcagg caggtecatg gtetteccae tteageegee tagtgaattt 20221 gaggccagcc tgagagataa gagaccctgc ctttaaaaaa caaaatagac aatcagctta 20281 gtgggtaaaa gtgtttgtga ccaaagctgc caacctgtgc tggatcccca gaacccacat 20341 ggtggaagga gaaaaccagt tcctgcaagc cctccacgtt gtgagccatg gcatgcaggc 20401 atcctcagac agacagacag acagacaaaa tgaataagta cattaacatg tttaaattaa 20581 gtattagaga caaggtttct ctgtgtagct ctgactgtcc tgaaacttgc tctagggatg 20641 aaatgcatgc accecetec eccagetgaa actgacagte tgatteecta ttgtgcttgt 20701 gtttcttacc agttcatcct ctgctggaca cttggatggc atcttctatg ccactgtgaa 20761 cagagetgca agettteatt ttgggggtat atacteagaa gtgggggtae tgggteatat 20821 gaccagtcag agattgttta gtaactacca agttctctac atatttagaa atactatttc 20881 trettette trettette trettette ettectett ettetteete etecteete 21241 tteteeteet ceteeteete eteeteetee teeteettet tttaagettt atgtgtacag 21301 gtgttttgtc tacatgtata tcttgcacac cagaaaaagg cactggattc catgggacta 21361 cagttacaga cttgggaggc atgggggtgc tggtctttga actcaggtcc tctggaagaa 21421 cagtgetett aaccactgag ttaactetet ggetecaata ttteatetet etetetetet 21481 etetetetet etetetete etetetete etetetete etetetete 21541 ettectetet ttettttta tttttattt ttetaettat ttteaatage agecacetee

FIGURE 6I

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21601 acagatacaa agttctctga ataggccata aaaatctgag cttactcttg agtaatatgt
21661 ggtgaatgga cggcagagca tggccttctg tcttgcttgg tcctcacaca ggacacaggt
21721 cctcagacag gcccaggacc ctagagctcc tttgggggag gggacacagt ggtgctatga
21781 aagcetgtet tettetaett acteteagtt cattataaag cattteaace tgttaatggg
21841 ttccagggtc atactattct gccttaatta aactaatccc cacattatga tcaagaaatc
21901 ccataaaaat gatctgtaac aacatcacac ataggagata aaatgaatta atgtgaatca
21961 cacggaaatg aggaatgaca attcctgtga ccctcccaga ggcccttatc aaccatagga
22021 aaaaaaaaag agctgacatg ttgatccaaa tagaggaaag aattaggaaa agcagttaag
22081 gaaagaaaga ggcccttaca gatttacatc tgcccgataa agcccactcc aaagcaggag
22141 tettgcatga gtgccatgta cectaactae agageageag gggagagatg etgaagtgtg
22201 cactgtgccc tgtgtcatcc agtcagtggt caggcatgcc acgtcaaaca tttttattaa
22261 cggggcacat gatcagaaat atttggagac agtgactgga tagagagtcc ctgtcattca
22321 tectggatet tecaggeaag actgacacat cagtttggaa gaatcacata acagatactg
22381 gaagagggcg ctggcaagca gcctatgtgg aggatagaac ttgacagcac tcaggcagag
22441 tcacctttaa ccaacacctc aggatttctt cccaagctcc cctctgtatc tcttttgacg
22501 ctgcttcctg aaatgtcttc cctctaattg tgtccctgtg gactttggct gtcccctgtg
22561 taggatgggt ttggtatcga ctgttctcga ggctgcgggg aggagatact tagcagagtg
22621 ccaagagtcc tccaggggca gcctcggatg atgaccggac tattcattaa ctcagaaaaa
22681 aatggtgcct ggaagcatct taccaagtgt agttgttctg cgctcagggt atgctcgggg
22741 tatgtagttg ttctgctggt atgcttccct tctcagagga gttcagttct catggtcttt
22801 gtaacgtcag tgttacattg ttttaatggc tacatcattg ccaccaatgg ctagcctctc
 22861 ctctgtctac cagccctttc ctttctcttc ttcagtgctg ggctggaacc caagactttg
 22921 ctcatgctag actaggcaag ctactcagcc ccagccttgt tcatggcact gagtgcttcc
 22981 atatgcccgg tgagctctcc caggtctggc tttcattgct ctcttcacaa gcctggatgg
 23041 tgttggatac ctgatggccc ccgggtctct tctctccctt cagggcaagg ggaacatgtg
 23161 ctccctctcc ctctccctct ccctctctca ttgttactcc tgcttgtgga gccaagcaaa
 23221 gaaaatgacc actgaacagt gaccacgtga caagttgggg aaagataagt agaaaagggg
 23281 gcgagaagag gggaagggaa ggagaggtaa gaactatgca aagaaaggaa gaaaaggaag
 23341 agaaagggga gggggagaga aaggaagcag ggaggaggac ctctgtacac ctccaaacta
 23401 accettcaag atccaaagag catettette cetgtggcce tecageggce eggeettget
 23461 caacteteac ageaaccetg ageggagtge ttgggtetge attgcacegg tggggaagee
 23521 gaggcctggg aggttccaac ctttgtctag aagcacctca tcctccgaga agatcagcac
 23581 tgacagagag gtcacccacc tgcctctgag ggccacctcc ccagagccca gagaaggatc
 23641 ttacctggga tctgtgggcg gccatctaac ccagaaggca tgggggtgcc tggaaatgcc
 23701 aggaaaggaa gtcaggaaca gctcaggcag aaatgaaggc acaaaatggg ccccacattc
 23761 ctggctgaac tgggatcaag agtgagcaca agcttctaag atctcaggct ttcttccttc
 23821 caacctatct gctacttggc ctggaaggag gatgcccaca gccttccctg cctcacctag
 23881 cettecatea cetecttgee cetetectet ettecettee ttetgetttt cettteceet
```

FIGURE 6J

```
24001 cctttcttgt ccccctccc aacaacaaca acaaatccat ggcttttgtt tctaaaatta
24061 tatccgcaca ataacctctc tgccaattcc aggcacacag agccaatgga ccagctccct
24121 ttggataatt caaattgacc ccaagatagc cctaccccac ttgtacctcc tccctttgtt
24181 taagaggttg ctctaagetc tttgtttcct gaccgaaatc cttccatggc ttcctattat
24241 cccagagaag tccacactg actaagcatt ccacccagcg tctgcagcct tctcaagttt
24301 caatccccat ccttcctggg gtggagtgtc cctgttgtac ctttggtaga gatgactagg
24361 gactcatcag attacaccag gacagttgat gtttggatta gcagcagggg tgtgaggcta
24421 gatgcttatt tgccttgtgg catgcaggac acctgtcagc tgcggagaac ggctcgccat
24481 accaatttcc cgaagggcct cgggctcttg tgcttccttc tgctatgatg ctagcctcgg
24541 ctgctgccac gtgtgttccc agcctcctgc tctggcccat cttcatctgt ccacagacct
24601 cagtgttgca aacatggctt cttcagatat gtctccctag ggtgcccccg cttcaggaag
24661 tacggctgag agagccatgg ctctttggtt cctggtcact ttgagttcct ccataccagg
24721 agggatgggt tggagctcag agaagaccct gggcatacag tcttgggtgc chttgtgtco
24781 aggcaactaa ggcacctcac ccgctatatt ttgcaggaac tttctaagct gggcttaggg
24841 gtggacactg acatagaact tcgaactctg cagctgcctg tggattacag ggaggtaaaa
24901 cggaggctta ccacaatctg ggaagatttt caaccacaag taagtgatac ctggagaggc
24961 tgtgggtctg ggaacctgat gatgggccca gggcctagga actttctgga ccttgatcta
25021 gatttgaagg ctggagtaca cctgaattaa agcttctgtc gtgagattct gggtctgtgt
25081 ataagtttat gctgaaacac gaggtagata gtaaaagatg actgggggca agtgggccgg
25141 acaaaatggg aatctggtat taaagccagg aggactctag gatagctcac acctatccta
25201 aaaaaagaga ggccctggat taagccctgt gtatggctaa ttctggctgt tctgaggaat
25261 ttaaggtaaa gcgctttggg cctaggaagg tctgatgatg attcacccag ggttggtcca
25321 ccttcaaaac atcctgccag gggcctggtg tgatggctca cacttttaat cctggcacct
25381 gtgagtttaa ggccagcctg gtctagttta tgagttcaca gccccattcc aaactaacaa
25441 aagtaactac atagtaactg aatataagca ctgtgtaaac aggggcacaa tgccaggtgt
25501 ggtagctcac gcctttaatc ccagcacttg ggaggcagag gcaggtggat ttctgagttc
25561 aaggccagcc tggtctacag agtgagttcc aggatagcca ggactacaca gagaaaccct
25621 gtcttaaaaa acaaaaaca aaaaaaccaa aaaaacaaaa caaaacaaaa aaaggacact
25681 gaccaaacac tgcagcaaaa tcctctgcaa ctgttttcaa aagaggacaa ataaagtcta
25741 ataagattcg attagactgt tgctagcttc ctttatgaaa gtttcattaa atacaggatc
25801 ctgttaaaag ccagcatctc ccagggtcat cttggatact tgctttcccc caactcctgg
25861 ggggaaagag agcacacaac ctcggatgag ccatttgaaa tacaaaagtc ctttttaatc
25921 cagaaaaaat ggggaaaagt ccttaaatgc agatgtagca tgcctaattc aacccaaaga
25981 tgtgttcctt ttgtatcagc accattactt aggggcctaa gcagggctcc tggaggactt
26041 ggagctagat ctgtttagcg gggctctgtc atcactggac ctctcttcac atctagtgat
26101 ctggtgtctg tcctgggatt tctgatatgt atgtccctac agcttgttgt gcatgtgggc
26161 atggactett etgecaagge catettetg gaacagtgtg gtaagaaceg aggetategg
26221 gattcagatg taagaggctt ccagccggag gatggagtgt gcctccccgg tggccccgaa
26281 gtgaggctgt ctgttgtcaa catgaaggag gtctgccggc gtgtggctgt tgagaatgtc
26341 gaagtggcct tttcccgaga tgcgggcagg tacttcagga ctccgtgtgc caagtgccaa
```

FIGURE 6K

```
26401 acagatggga gagagggatt atccttcaga gtcccttctc tctcctcaag aggctatcct
26461 atgttgtcca tgtggctgct ttggtcacag gcatcctatt tgtcacaggc actgcagatt
26521 aatttaacct cttctccaaa cgctgacagc ccctcccct aagcaccttt cctctcttct
26581 agggataaag aaatacccga ggggagttgg cagtaaggga gtcattgtgg tgaaggtgtc
26641 ttaccactag ttgtttgaaa ggccggctca attctgtcat gaccgcttgc tggtcattag
26701 actctgagcc caagaaccaa tgtctgtctg gagtgttctt aggccatgtc ctttctctat
26761 cagaagagcc aaactcaagt ggtactaggc atgtgggcat ccataaactc atgcttcatg
26821 aaacctgtac ttactgtgtc tggcatcgac aagatctggg agtaatgggg agtttcatgt
26881 ggttgcaggt acatctgcga ttacacctac tacctgtctc tgcaccttgg gactgggcat
26941 gcggctctca tccatgtccc tcctctgtcg cactggctct cggccagcct tctgggcaaa
27001 gccttgcgag tcatcatcca agaaatgctg gaagaaatcg ggaaagtcca gactcaaagt
27061 acageagett aagggaagea geagggggat geetteetta gatgaaatgg agtgttteag-
27121 gcttggacgg agaagccage tgtgctatga gaggctctaa aaaagggaaa cagttacaag
27181 gctgggggtg ggggtggggg tgggggtgtg gactcacaga atcacaatct tactttagtg
27241 tctaaagcaa gaagaaaatc cccaaaggcg gatgcttcat aaaggattaa ctaggggaag
27301 ttatgacett tgtaacteca aagagecace aaaacetagt gteaagacea aatgaactga
27421 atttattata caatgttctc cctgcatgta tgcctgcatg ccagcccagg gcaccagatc
27481 tgattataaa tggttatgaa ccaccatgtg gttgctggga atcgaactca ggacctctta
27541 ageteteagt catetteect getttgtttt gttttatttt gagacagggt ttetetgtgt
27601 agccccgcct ggctgtcctg gaactcacag aaatctgccg gattctgcaa gaaaatgact
27661 ttacaagatt tcctttgcaa ataaaccaag gacattttac atatgacaga gccaagccac
27721 actaaggcag atcaaagccc aaggtggaag ccgggcgtgg tggcacacac ctttaatccc
27781 agcactcagg aggcagaggc aggcagattt ctgagttcca ggacagcctg gtctacaaag
27841 tgagtgccag gacagccagg gctacacaga gaaaccctgt ctcgaaaaaa acaaaaaaac
27901 aaacaaaaaa agcccaaggt ggactgggat ggcacaggcc accagcacag aacctagctg
27961 cttggctggt gccttggctg gagaccctc tctgtgagca aagagctcct gctccaaacc
28021 ttaggtccct ttgttccagg agtgggctct agtgacactt caggtcactt ggcacctggt
28081 cagacacatt aaaagaaaac gccgggcata cgcctttaaa cccagcactt gggaggcaga
28141 ggcaggtgga tttctgagct caaggccagg gctacacaga gaaactctgt ttcaaaaaac
28201 agaggeccag accedaacce ccatgagcag etettecace ccetetgege etetecagtt
28261 tetcaagace ctaagegeee atttgeattg tattttttgt aaatagettg geateeeeg
28321 acaatacaca ctgcatcctg ttcagtcaca gctgatagtg ggtggtttgt atgcttgcga
28381 gccagtgtag aacactgttt ttttgctggt catttaatgg ttgggaggtc tgaagcatgg
28441 ctctgtgttc atctataaac ccgactaata aaaagtcctg gttctgacta cccagagaat
28501 gtgtcaccaa caacacacca gccaaaaaaa ggaaagaaaa aaaagaaaaa ggtgtagtat
28621 ggtgaggtgg gtgggcagca gtatattatg aatctagcta gtaagcaggt gtttaaaaaa
28681 acgaataata aattaattet agaacgeteg taataggtga ettagetggg caggggtgge
```

FIGURE 6L

```
28741 acatgccttt aatgacaaag ctccgtagga aggcaggtgg ctctctaagc tctaggacag
28801 cctggtctac agagcaagtt ccaggtcagc cagggctaca cagagaaacg atatttcaga
28921 gacttaattt tatgtgtatt agtgtaaagg tatctcaccc ttagatctgg atcccttgga
28981 actggagtta caattgtaag ctgccatgta ggtgctggga attgaaccct ggtcttttgg
29041 gagagcacac gtgctcttaa cctctgagca atctctcgat tcctaatagt cttttaaagg
29101 tctagtacct ggctggagag atggctcagt gatttaagag tgccgactgc tcttccgaag
29161 atcccgagtt caccgagttc aaatcccagc agccacatgg tggctcacaa ccatccgtaa
29221 gaaatetgat geeetettet ggggtgteet aagacageta eagtgtaett acatataata
29281 aataaatett aaaaaaaaaa aaaaaaaaaa agtetagtae etteateett aaaageaget
29341 ggctccggcc aggcaggttt ttggtaaact ggaggcatag taccaatcca ggatagcaca
29401 gaaataagac ettcagcgtc atctagtgaa gctccctggg catctggtaa acaaaacccc
29461 cggggcagga cgagattgga aggtgtgctc ttccaacgac cttttgacta taaatccaaa
29521 tacccattgg gttaggctac tgggaggctc actgggtctt gagttgcctc tgatttgctt
29581 ctgccaccta tgtctcatcg atcagttctt cacccggtgt cctgattttg tcactgagtt
29641 cccccattct cagtgttcag tgaggcggct acctactctc ccaggagtct agaatgtatg
29701 gcttggttga ttttccaacc caaaccattc atcaccttcc catggcaaag atggagagcc
29761 agcateteag agttacetgt gggcaaceta acgaeteage acettgeage caggaacage
29821 ccgattttcc ttggttctct ctccagcacc ctcaggcacc ccaactgtga agcactacca
29881 aggacaggaa aatgcacgca gcacgcaagt ttctggcaac cccgcccac ccccagactc
29941 acacatacca aagccacct ggccttttgt caacccaagg tccaggggcc aagcctgtga
30001 agcagecetg agaettgtge tteatgecte etgattttee tetagetgag taagtgaggg
30061 gaaagtaget tetteaaact caacagcaat ttgcatttgg agaaaccegg etgteagtte
30121 tegtgetgag cattecegag tgacacaca acacacaca acacacaca acacacacac
30181 acacacaca acacgagget cagetteceg getgteagtt etegtgetga geatteetga
30241 gtgacacaca cacacacaca cacacacaca cacgaggett agetteecga ggaagtgggg
30301 gatggttcca gagtgaagag gaaaccaact gggagacaaa ggtgcataca gaattctttt
30361 atttaactta atccatgtgg tactttaact actagaaaaa agcagagtaa tagactcaag
30421 tggccttagc tttagccatt caaaatagac aaagtttctt ttttcataat gtaaagaatc
30481 ccgagtatgt cgcagtaaca ggaataaatt cttacaacag aatatacaaa aacattgaat
30541 ttttttcat ctactgattt tcttttatat ataaacagag ggtttttttt tttaggaata
30601 atttatacac agaaagttat tttatgtaac aaattggcca tattattatc ttttttagac
30661 ttttttttc ttttttaag aaaaaattta acaagaaaac tcagaaatgc attattggcg
30781 atgaactctg gcaaaactct tacttcaacc tcactggcat aggaagcaga caggggttgt
30841 caccaggeag geacetacte cacetgtaca tgtgtetgea cactgeecaa cacceacaag
30901 aaactgaaag accaaaccaa acccacaaat ggttcccaga cctttttcct gcagtgttag
30961 aaagttccat gtgttttcaa caacggtatc ttgtggaacc agagagacat ggccaataat
31021 gcacggggag ccaaaggaca tggatcttaa tttgaaaaaa gggggcgagg ggacacacat
```

FIGURE 6M

```
31081 tgtggttttt gttaccagtt tgttctgtat tagaaaacaa tggaccttcg gcgttcgcca
31141 tragatacag graggeacag cattegrag gatetgagge acatgragec acgggetgea
31201 catcagagte atgtgateac tgtgaageca ttccagtgte ctgaaaccet cccatctcca
31261 tagtgttgca gagctaggac cagccatacc agccagatgt caccatggag tgccatctct
31321 ttgctgggtg gccacacact gctatttcca tggccagcag ttctttccat ctgtttgggc
31381 tgctacactc cacagggaac agtgagtccc agataattcc tttccccagc aaagggttcc
31441 aagatcaaga tactgaagaa tacagaagta ctttttaaac cactggcatt ccttttgttt
31501 tgtttttatt tttatctgtt ttatttttt ttgttttatt tatttattat ttatttttt
31561 acaaactaga gcagaaagca tgtgggaaag agggtgaacc acaattggtc ctggggagaa
31621 tttcttttta attaattttt ttaagttttt atttttatt tttggcatat tgtaaagcta
31681 gctagtaaac aagtgtcaaa aaagaaaaag gaaacaaaga gggggaaaaa agaccacaaa
31741 cacatatttt tgcacacaca-gagagaaaaa aaaagtgttt ttaaattatt ttcggcaatt
31801 ataaactaca aacattttat aaaattattc tatgttctta caaaaatgca atgaaacatt
31861 gaattagtte ttgtaaacca gagettegte aacgaetace egtaatetae tggaettaga
31921 agccctattg aaaggataat gagtaattta aagaatggtt tactggaaag atgcagacac
31981 aaatgtggac acacaaatca gtgattatga agttctcaca gaaaccaaaa tcaaatcaat
32041 ccctaacgtc atgccccaga ccgacaactc atctgatgag tgtgatggag tctgagtcct
32101 tecgcaegtg acttagetet aaggagaagt ttecagagea ggatgecaag tgtettatet
32161 gaaaccaaat gcccacagtt gactccccag cctccacatg ctctgacacc ttcagacacc
32221 atcaagtcca aatatggtcc atgcttcttc caggcccttt aaccctctgt cagcaattcc
32281 cgtcatgtca cgatgccggt taccaagggt gcctactgca ccgtcactct gtcatcccat
32341 caaggaatgt tcgtttctct aaatcgccaa ctggtcatcc aagctggaag cccaaagcaa
32401 agacccetgg cetgtecaag gtetgtatet teagcatete tggcaagaga ggtteaattt
32461 tacacagaca tectgtettg aagtteteat ttgtaccace acetagttea aagtggactg
32521 ttaaaagttt gaccatcatc actggttctt aaggggtgga tctctctggt ccaggtctcc
32581 caatgcagct gcttagccca ggaaatgaaa agacatcaga caaacataaa agtaacatta
32641 aaaacaaaaa ccaaagggaa aaaaaaaatc ccaaaccgta aattcattac tgctaaaatg
32701 ggccaaagca ttttgatgga gtggtcctgt ctcctcctgg atgccagtgt ttaggaaagg
32761 agatgctttc agcactctgt ggccactctc agaggaccca acgatgacaa cagagggcct
32821 tgggtaagca tcctagactc ctcacccaca tgagctcagt gtgaccttgc caccactgct
32881 tgcttacctc aggcacaggc actgccaaaa gaggtgggct gctaaggccg aggctccggg
32941 ageteagget ggettaggae ttggeateat acagagetea tecatetgte ageceaceet
33001 aaaaactcct gtataccact ccgccatctg ctcgtctcac cgtgatcgct tttctagttt
33061 atgaagetge ttttcctace gttgaacagt ceegagteat aagaaacagg caggtaggaa
33121 aaagagcaac cttgaacagt cttttatatc tcaaggaggg agcctcatcc catctctgaa
33181 tccaatgtta ggacattcct gaaaggagat ggcgaagcgt gggccccacc cagctcaggt
33241 tcagctctat ctccacgcct caggaagggc tgtgtggggg cacacctgga tgttcacgtc
33301 acctgcatgc tgtgcctcag tggttcatgt gacttcaagc agtgtgagct cctatcagaa
33361 gggggggttg ggttggggtg ggctcgagtg aaaaaggcca cgactcagct tggtaggagt
```

FIGURE 6N

```
33421 acttgaagct tgtaaagaga aaaatcagga agaggcgggg aacatcagca tgagatcagg
33481 ctagaactgt ggatatgatg ccttgcaata gtcggggcgc gtcagtccag cagaacgact
33541 gcaccetegt acaagecaac etttettt tattgaagtg tttetggage attagtttat
33601 gacggccact acgctgttgg tgccgtctct ctacttaaag gaaaaaaaaa aataacaccc
33661 acgcaaaaac aaacaccaa caactcggac agtttcaaaa ataataataa taaggaaaaa
33721 aaaaaaaccct taaaatcaat tgaatgaact gtagaaatcc agttgtggaa aaccggcagg
33781 tatgtgcgag aggataggcc actatcccag agtgtcacct acagtgtaga agaaaaccct
33841 gatcaaacag tatctcccag tgaccctgtg agcatctagg aacccagaga agggcagcat
33901 tccagcagga ggcgaagggc tcctgagctt aaccgaactg ttaggcagtt tctccatact
33961 gggggaaaag attagecace geggteecca getgaagtee ceagggeetg taagageage
34021 tgctggagtt gaggattgca ctgtccacct gtgagcagca gacggatggg tggacagagg
34081 cagagcacgg ggaaggctag gcgccaacca ctggccttcc-agcctcaaga tttggtcagt-
34141 cettgtttag cectgggggt tgegggggg gggggggaag ggagggaaga agagggaagg
34201 acagcagcet gcagggggca caggettegt ettgeceeet tttttataet ggeettetgt
34261 cagaagcaga agggggagct ccctgaccgc tgtacctcca agaggaacca atgccaggag .
34321 agcaatggtg gcatgccct gcctcggtgc aggtctcaga ggagcagctg agggggctga
34381 cagggcaccc tgacatgtgc acacattggg actctcaaga caacctacgt gtgggtgcct
34441 cetgeectea aaacetggga gtacetgete tettagggat agaatttgte agteatteaa
34501 tetgtagaga aagttetgtt ccaaagtcag ccagetgagg atgggceggg gageeceet
34561 ccactggcgt gctgtgctca tggtgactgc tgggttgaaa agtaggggac caggtgagga
34621 gaaagaccag agttgcccta ggaaaagtgg gcttttggag acagagcagg aagaggctgc
34681 teatttgagt tagegttget ttaaccccag aatccagect ggcccctctc tgcttcacct
34741 gggtatgtgg cctgcggagt ggctgaggtt accaggatca ttggcctact gtcaggtact
34861 acacatgaaa aacaagagtg aggtagataa atgtttgaaa aacaagcccc cccaaaaaaaa
34921 cccccaaaa ctgtcccatc taatacacac atacacagag atacatgtac cctttcctca
34981 gcatttaaat ccataacagg ggcttttcta cagtgattaa aacaggtatc acaaaataaa
35041 ttaaaactcc tacatgaaat accttcttaa taagettccc ccctcctttt ccctttaagg
35101 gcagaggcta ggaagagcca caagcctgaa cctacagaca agccagacaa ctccagcttt
35161 cettectgea tetaatetee agteacaact geaaceatea teatecaaca gtttteetae
35221 tectaattta aatattteea eecagaagea tetetegege tgteactget etggtaagaa
35281 gtgctaaatc gaaacaagac aggaccctc ccccaacccc actccagggg gaggggcctc
35341 caagcccaga gctccgggat tctggttaag gaggaacagc aaggggctct agggccactg
35401 tagggtcagc tctactccac tttgggattt ccggcccggg agtgggcttt atagcacacc
35461 cactaaagtt getgeteetg gecatgggga gttggtgtet tacatettge teccagggag
35521 gccaccctt cagacaaget ggttctaaag acaggtgggc ctgcttgtga aggaggtggc
35581 agatgggcca ctggaccage tetgetgcat cetggggaet cagcagetat tgtgtgtgtg
35641 tgtgtgtgt tgaaagatca aatattcatt taaataataa tccaatgact attgtctgca
```

FIGURE 60

35761 tgtgtgtgtg tgtgaaccaa agcaaggaga gaaagcaaag tgtgactttc aacaacaggg 35821 actagaaaca ctaaaccagg atgtgtggga tttttaacct ttttgtttct gacctgagtt 35881 tgtggcatgc cttgccctgg agcagatgct gtgtgcgggg aagcaaggaa aggagagagt 35941 agggcccagg agtctgtggg ctctggactc ccaccctccc cactccctca cctgtgactg 36001 tgctcacaga gcctatgggt tagagggtaa tgaatggggc tgcagggagc aggggaaggg 36061 agatgtattt ataaaaaagg catcaaacag ttcacggcaa gttatgtcct agaagcatca 36121 gttgccggag aagaggaaga aaaaccacac tctagtgata agcagaggaa gtttcttgga 36181 gtgagcagaa aggaagaagg ggtagacctg aaagtttcat agattaaatc cacaaagata 36241 aagaacaaaa aaaaaatagc agcttttctt ttcctgtaca gatgtataga tgaatatctg 36301 aactgtaaaa aagttataaa actgacatta aagacgatgt gtatgcaaat gtttcacggt 36361 ctaacataga actgagagac ccatgaagaa gtcctagtaa cagaccatgt gaaagctcac 36421 actycttgga tecactgect gggcgggegg etceaggetg etgtggetet gaaleeette 36481 etegaacate cataaccaac agecaggeeg agteeeegga accetttega gtgtgtggee 36541 ctcaggggag gggcaggagg gaggtcgggg agggggacga ggctggtgtg aggaccacct 36601 tgacccacaa cctgaccttc aagcttgccc atggccactt cctccagaat tcttggggtg 36661 ctgtgggtgg gggaggggtg gagaaccagt tctgctttcc ccttcttcaa ggagggcgag 36721 ttccatcttg tccagttctc ccaaacggta accatgcaac gagacccagg agatgtgggc 36781 tgggagagcc gggcacagtg gggggcctca gcacgtgtct ctcaaatgtt atcatcaacc 36841 agacaccatg gttcatccca cgcctctgga caaagggaaa tcagcgcagg gagtatatgc 36901 gtgtgagaaa aaccaaaccg aaaacaggat tttggcaaaa atggcagcgt gaaaaatgat 36961 agccacggat gaacaatggc ccttttaaat tttggggtga ccctaaaaaa ggttaaaaaa 37081 cctacggtgt caggcaggtg tatgcggggt gatgaggagc cccaggggca gccattaagt 37141 caatctgatt tttttttt ttttaaaaaa gaaggcttcc cagatgggcg ttcacaaaca 37201 tttttccact gtaaagcaga aaagagagaa aggagagcgt ggaagtggaa ggggagaggg 37261 cagagaggga aggcagagga gagaaaaagg cagagaacga agagactcaa ttctcgagtg 37321 tcctgttgct attaagtgtt gtcattaagg tttgcagagg cccatgtcag ttaagggttc 37381 gggtaaagga aataaaaagc tgcttgcata ttgaaaaaag gaaggtccca aatgtgttta 37441 ctgcagagaa gccgtctccc gtgggcagca atggcaggtc tgaagatcca ctgaggtaca 37501 ggaggettgt gaatagattg ttacaacctg ctctcccctc cccgcccccc cgcccaccga 37561 gtgggggac acacgttact gttggcgcgt gcttcggtgt gtccgaggat cagcaggtcg 37621 aggactgggg cagaggcaag gccctctcgt tggcgcgtcc cccgttcatg tgagcgtaag 37681 getgtetete atcaaaactg gegeggagaa egageaegee agggeeeggg ecatteteag 37741 ccttgtgtcc tgagtgtctt tcaggcagag gcagggaggc tgaggaggcc gaagggtcca 37801 gtgggacgct ctccatgttc tcaggctcca tctccagctc ctctggctcg ggaggcttgt 37861 tetecteget gtagtagaag gagaceteet ggaagetggg etecatetea teettgatge 37921 tgccgatgat ctccaggaag gagggccgca tcttggggtt atactgccag cacatgcgca 37981 taagttcaaa cctaagggag tgatggggaa gaaaggaatg agctgccaga gagacccaga 38041 agaactgtac cacctctgca ctctctgctt cccatctgga tgcctctggc atcctgccat 38101 gtatcttgcc cagaacccag gcccagccac agtgccaagc ccagactcac ttcaagtctt

FIGURE 6P

```
38161 ggttcaccga ttccaccatg gacggttgta ttaatgatag cactgctaag agataaaacc
38221 cactteetgt etaageacet ettetggeea cacattaace agaagaggaa acetetetet
38281 ctcactaatg agaatcacag ctttcctgac aggcaccatt ctctgtatct cacaccaggg
38341 ctatttctaa gtttcttcct ggcaccaggg cgcccctggc agtgggcctg agggaggagg
38401 cggcaggggt gctagacaga cggagcacat atcccaagct tgctatctca cgccagcacc
38461 tgctcactga ggatgtccca tgaaggaaga tccctgtctt gaagatgtag gatgcccagg
38521 agcagagtte taatagaaac ttcaagtcgg atgccaacga accaagggaa gtcctaagca
38581 tcattttctt ctacaaacaa ggccaaggta aaaacagtat aaagcccatg acgtacctcc
38641 atcactecca caaggtcaca aacetttgca aagetteete gteetegaga gttacatggg
38701 ccagctggca cacaggacag aagagaaagg ctgctcatgc agccaccgtc ctgaccagca
38761 aaggeetggg agtagacagt ggaggagace ctaagcaagt gaaggtgtgt attgetgaca
38821 cgtgcaaggc catgtcaagg accccaatgc cccagtccca tgggagtggc aaagtctacc
38881 ccagtgatgc ttgcttagag agatggtaaa gccttcccct gaggtccgag ttgcaagtgc
38941 tgacagtgtg tgcagaatat gtccactgtc acgtccttcc cctggaagtt tacagcctca
39001 agacggette cetgeagaga tggetaaace tgcetecatg tteagetgta tataataate
39061 etgetteett gtttatetge atgeagtaat etgeetetet gttcaaatat atacgetaaa
39121 catactgage ttccagagec cagtecacge agtececgtt tetetatace caagtgeaca
39181 ctctttgttc attccttga tgccctcgtc aagtcatagt tctgcaaccc aggccatgca
39241 gtgaaccaca cctgggctct gacggatgga cagacacaca ggcccgacag aaaacaagga
39301 cagggtggtc atgattctga gggaaagggg tacctagcag ctctcaatca caggcgtgtg
39361 agaccaaagc actetecace tatgetecte caggaaactg tgttttataa aaacteetgg
39421 ctcaacagac gctttacact aaaacccaca aatggaagtt cgaacatata ggaatctcaa
39481 agcaccctga acaggettet aacattetac caggetgate actgggccac caggacactt
39541 ctttacaaag caaataatcc cacaggggta aaggcgtgtg aaagcaacct attggtaggc
39601 atgaagttgc ctgtgcagag aaagccactc ttgcccatct ggccagcttc cttggactct
39661 gtaggatcaa gtcaggccag gtggaaggta gttatcttaa aactgaaaaa aggtgcattg
39721 gagatccacc tccaagaatt aagcactctg gaggcccagg gtgaagccaa ccaattacag
39781 cggagccagg tgcagcttgg agcctgttgt tagcggaatt gtaccagagc agagctggtt
39841 acacagcacc tgtggctgtt tctaagctcc tttgtaggct gagtagttga gacagcggct
39901 gtttagctag gaacettaca atatttactg cctactcctc tggaggtaaa gaaaaatccc
39961 aattaagtgg ccaatgtctc gacggaggaa aacaaactgg accaaagacc aggctaacta
40021 ggtattctca ctggctctaa gtgactggtc ctagtggcac atgacaggtt gcaggtaggt
40081 actaaaagct ctaggcccgg gagtcacgtc agtccccgag agccagagat gtctctttac
40141 tecaatgatt acaacacate etcattgtat gcataaggga aaagcaccaa ecacagcatt
40201 tgatcatttg tctgaagtca cacagggagt gagctggaac ggcgtgaggc tgtcagacaa
40261 tgcagettta etgtaagtaa ecatggtett getageagae ggegetetee egaetgteta
40321 cagacagtca gateteetga geeggettge tetggttage tgetgeagaa gettgttete
40381 cccggtcccc atcatttccc gaaggattaa tcggaatggg aagcagacac aaggagctta
40441 gctccgtggc caggctgcaa tttcctctct ggctgacagg cctagccctg aatagaaaag
```

FIGURE 6Q

```
40501 tgcaaccggg ggcaagaaca tgagatgtgt ctggccccaa gccccgtggc caggggtggg
40561 gggtggggct gaggaggtgc cacgggcagg gtagggatga ggtgacatca gtaaaaacaa
40621 gccatgtgat gcctctttta aatcatccca gagtcagccc ttccagggct gcccataaaa
40681 ggaagtettt tttgetetgt gegatttaag acettgtttt ttttttgttt tgttttttt
40741 aaatactctt tccacaagaa aactctccag tagactctgg gattaataag ctgataaaat
40801 gctccctcta aaaagcacac tttaaaaacca ctggacagct ctgatgagct ggagccgcga
40861 tttacagaat atgtccctct gtgaaggtgc acacctatcc ctctagaagt gagtgctatc
40921 ctggggtgta cgcccaccgc tatgcccatt cctcacttgg cttctgagcc cccaagcaca
40981 ccccgtgtct tcagctggac aggctgccat ctatgtgagg cactggcaaa ctgaaatatg
41041 cccaggacet catgtataca gtacccetge tgccgcctgt tagtactgta ccaggtagta 41041 gtgactetta gcagggatea gactttcaga agggectacg ggactgagtg ggtcctccte
41161 tagcatetca agcaactaag gttgttttag ggccaggace tagacgggga tgctatatag
41221 cccagttgct ggcacacagt cgatgccagg gaccgtccag cagacactgt cacctgcctg
41281 tgatgactct attcaattta tctcgacaaa accagactgg gattcccagc ctcctggggg
41341 tggagaggaa aagtacagaa gtagtcagat tggactgagt atgtctcagc tgcatctgag
41401 ctggtgacgc tcggctagta aaacgttcaa gttccttcct gaatcccgca tcccgaagac
 41461 ttggcatgtg agctctggag atgttaatgg atcaaatgga tcaattctgt ggctgagctt
 41521 acategtegt eccattetge ageacgaggg etggaacetg tttcaggate tecaggttee
 41581 gtgaactctg ggactggccc ctgacctcag cagggttcac tgacaaatct gtgtccaaag
 41641 ccctgaaacc caggggtaaa gatgggaatg ataggctccc ctgacccagc ctcacagaat
 41701 ttgctagatc aattcaaact gagctattgc actgacagtc agacctggat accetggtgt
 41761 ttggtggcag cettteetet aaagetagaa caetttgtaa tacacaagge tggataetta
 41821 gctactcctg aagcagactg gttcatgtgt agggacgacg agaccaaagc atggccagag
 41881 aaagggctgt teetgeetea gaaccacace atggaagtee tteetetacg tgtgagacee
 41941 aacaggette agactactee caagagtgtt tgettactgt gecaaaaaaa aaaaaaaaa
 42001 atcetttcac agaacacate tteeteteat cagegtetea gecaaateag ggcaccacae
 42061 tecetactgg ageageeegg etecetteee treactetgt tetttetta gaaaggagae
 42121 cgatctgcca agggggttct gaatggcaaa gcaaaaaggc ctcctgaatc aatcatttcg
 42181 catccaagag eggeeteegt gtgtaagett ceteetete atgetgggaa caggaagtee
 42241 actgcctttc ccatagcagg tggctccttc ccaagcatat taaattcata ccaaaaaaaa
 42301 aaaaaaaaat ccaggcagct ggggatggat caacttcagg agttccatga gtttctcaga
 42361 caaatgtttg ctccagcata aaagaaaaga aaaaaaccaa caatacctct cctgtgacca
 42421 ggcccaaacc acaggaacaa aactcacacc tgctcttttg aacggtttct cagctcgtga
 42481 gacagtgetg atcetggtat cetaaccaag getggtgggg cacaccetta cacagactca
 42541 gaggcageca tgctcctact ccatcctttc acctttgccc acatactgac tattctcgca
 42601 atggacgagt aggactgccc tgcaccactg aggtcaaagt aaagctataa cagcactcag
  42661 aacccagage ttetetagge aggeeectg cateetgtac geetteggag gteagtttag-
  42721 aaaggccaca gtggcagtgt tctccgtgaa gatgctgcag ggcacagcag gccacggacc
  42781 agtcagtggc tcaatatggc ctgctgtcta ttcagttttg taaggccctc ccaagcaaga
```

FIGURE 6R

42841 gggttttttt tttttacact tgccaacagc tggggcaaaa acaaacaaat taacaagtcc 42901 cccacgcccc acccccaaat aggagtattt tataagaaga aaacgagagg aattcaaatt 42961 ccaatataaa gttttagttg ggcaccagca gtaacactgg ctgcaatcca agcactaggg 43021 gagtttgagg caggaagatt atcctaaata cctgggctac actgactcca tccttgttga 43081 ttcctgaatc atagtggcag agcagagggg ctggaaggaa gagtgagcgt gcggtcccca 43141 gcaccaccaa tectetecag tgtattagag aaateetete agtetatgga gtggtecaca 43201 gagaagccac ggcctctccc actacacaga accatcactg ttcctaccgc cctgtagtaa 43261 atccgatete ettacaatca ecceaegtae eggagtatet teatetgegg gaageeetge 43321 ctctgaccag cagctatctt ctggagaccc tgagctagct agtgtcacct catcgagctc 43381 ctcctaggtt tcattagaaa gcctgtgaga tgacattttc aactgttgga gcctcacggg 43441 ggacgatget ageceacace ttgacatete aagatteaga gtacagteac tageacetet 43501 ctgtgctctg cccaccacct gcactgcacg cccaacctct ccatctgtac.attgcctcac 43561 catccaagge gecaegagag tgagegetge getggggaag agaaggeeag gggtaggeag 43621 agtcttttgt gtagaagtga agaaatcttg acaacccccc tgggattctt tcactagtgg 43681 agctgaacct gttttgaagt gtttctggga aactgtatgg gtcctgacat atcagtggga 43741 acctgctttg atgcttaacc ccgagatgca gagcaacagc cgagccccac cttaacgtgt 43801 gcacatcaaa tgcaagtcca ctgctctcaa cctgtactcg atgagccaat cggaatacct 43861 toatgtotto ottgaaacct cactocaaga agtgccatto toggggotgg agagatggot 43921 cagcgggtaa gagcactgac tgctcttctg aaggtcctga gttcaaatcc cggcaaccac 43981 atggtggctc acaaccatcc ttaatgagat ctgacgccct cttctggtgc tgtctgaaga 44041 cagctacagt gtacttagat ttaataatga ataaatcttt aggccagagt gagtggggcc 44101 gaccggagtg ggcaaccttt gttcccagca accacattaa ggctcacaac catcagtaca 44221 tcattctcca gacccactga gccaccaaca tcagatgaca aagaaagacc tctactcaag 44281 agagtacaaa taaaaggccc acatgtggaa agattcttcc ccaattttgg caacaccagg 44341 taacttctga ggggtggagc ctaggaggct gccaggtcat tagaaagtta tcttcaagat 44401 ttaggactac agcaggaaga ttgtgaaccc ctttaatgca ggggttctca accttcctaa 44461 tgctgtgtcc ccttgacaca gttcctcatg tcgttgtgac ccccaactat aacactactt 44521 tataattgta atctgctact gttatgaggc aaaatggaaa catctgtgct ttctaacggt 44581 ctcaggtaac tectgtgaag gggcaagggg teacgaetea caggtagaga acggettete 44641 taatggctcc ctttcacttt caagccacaa agtgagactg tgcgctctga cacacctttt 44701 ctaccgtaac agttacctcg ccacaaatcc aatggacccc actgccgctc ccacactggg 44761 agccaatgtg aaatgcttct ccttgtaagc tgtttatctc agggagtttc tcgagtcaca 44821 ctggctgagc acggaggtgg acgtgacacc acgtgtgtac tgccatcgag tgacaattct 44881 cacaaccaat cgatgcagga tgttatttt aacagaagtg gagcgaggca accatctcac 44941 caacccccc tagggtgtgc ctacaagcat gtccaaagag ggatgagctc aaccgtgctg 45001 taggtccatg cagctcgaag ggattaagaa gacagcagat ggtctgtgac cttgtgctgg 45061 ggctctctga gctttagtct acccgtgcaa gagagtgact cctgaccaca gagctctgtg 45121 tgagcatgct gtatagacct tccaggggct tggggagagc tttcaaatct ggctcagcag 45181 tagtaactaa cttgcatttt tgtcttaaaa attaaatttt gcatgaaaaa gatgagccag

FIGURE 68

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45301 cacgccatgg tgcaaagtgc caattagcac tggggggacc aagggggcac aggatgagat
  45361 taaggagcag cacaaagtca cagatccaac aagctcagca gcagcaggat agagcctttc
  45421 taatcetete etgtacecae acacaaegga gtgggtgget etggaaatae atacageata
  45481 tcagggcagt tgtccggctt gtccagaagg ccacctcca tgacgaaacg aagaacttgc
  45541 tcgttggaca agccctggta gggctgctca gccagcgtgg cgatctccca gaggacgacc
  45601 ccgaaggacc tacaggtgga acagaacagg aacagctcag aaagggatgg gaagggccat
  45661 gtccctcct tgccagcatt tcttagactc tgggtcctga aaaaaagtgt cctcaatgtg
  45721 acgactgcac tttgtggaca tcaaaccagc cagcttgcta cgtgtgggac atctgttccc
  45781 ctttgtcact gctaaggett cctataggge tactgcaace cagggetgag gtaattaatg
  45841 ttaggggctt ctaacatctc tcacagtttt aagagcccga tctacagcgg acacattcag
45901 tgtctggtcc cagccattac ttggacataa gccaaattag ctctagttca gcaaggaatg ...
  45961 cagaggacca ggtcccagcc tggccactga cctgagacag ctaagcatct caactatctc
46021 ctgcagggat ttctttcatg ccagcttaga aatactgatg ctaatggttc tccacgcctc
   46081 cgcaagaaga atctgatcag ggttcttaaa acaatgggta tcttgggctc tccaaagcaa
   46141 ttctgacetg ctggttgtag ggtagggagc tgggcctgga atgtctcaaa gttctgtagg
   46201 atcttgactt gggtcaagga agatgaaaac tcgtcccctg cagaactcag gagccatggc
   46261 tgcagaggtg gctgtgtcag gaagggaact ggggtaggat acactggcca gggggtgtgt
   46321 cgcaataaca aagagtccct tggtctagag gctggctgag gtatgaactc atcaggcgaa
   46381 gcagcgagga ttctactgcg tgaggtatgg cctgtcagcc cagaagatgg aactaaagga
   46441 gatccatgca tgcagacact tcagacagac aatggtcaca ctgtcgctca gtgtgaacac
   46501 accttctcag ggagaaccct tgctttcaca aaattcttcc tggcctgtct gctcttatgg
   46561 tcaggctgta tggctagaat gaagaaggct gcccatggca agccaacaca aggcttcgga
   46621 tggaacceta gcagggetga gccccacaga agagcetgag gcggccattt tccacttagc
   46681 actctgagga teetggeeta agetggagea acageetetg actgeatett aacttttggt
   46741 tcgcagcttc agtttccttc taggaacaaa agggttttgt cccaactgat gctaagcaat
   46801 gtcagacagg aacagaacct cagcaatcag acccaagttc cttgggaacc ggcagtcact
   46861 aagacagaca gtgcagttac ggttttcaaa gacctggccc tagagaagca ggtttcctgt
   46921 gtgtttcagg cctgggttct gccttgcaga gcctttgtgg acactcggag gcattcttta
   46981 gaggetgeag tgeteaceet catgtetgaa teeggeetga gacaageagt gatgtatgtg
   47041 gttttctctt tttatcaacc ggtcttgacc aggttccctt ccaagccgac tccccttgtc
   47101 tttcatgctt tccctggtgc accacaggct ttcaggcatt cagtcacaat cctggccccc
   47161 agetettgae tgecatgtet agattgetgg ttacttgaet etacagaete ageatgteag
   47221 ctccagtgta actcttgctg gcaccctgtt ctcctcgtg actccctgca ggccaacttc
   47281 ccattccatc ccaccccatc tcagcagcca gtctgctcat aggacggaca ggaagataga
   47341 gagtataaat cagaaagaac gaagacgtgt aagggctggc cttcctgccc ttgtgaggga
   47401 ggggacagtc cctgggacat ctccccagaa gctcaaataa cagctgtgat aaatgcagat
   47461 ggtcagggtg tggcttgacc tgaggacacc tcccctcacc atgttcctaa ggtctcctac
    47521 caagtcaaac aaaatccttc caacttttct ttggattttt acctacttct gactgtgaat
    47581 tcattctaaa atgactgcaa ttcctctagc aagcagaggt tcaggcagag ctgagcatcc
```

FIGURE 6T

PCT/CA2004/001674

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47641 gtttatacgt tctagtgtcc ttgatgtccc cagctgtgtg ctcaaacacc ccagcacttg
47701 gccttttctc ttcacgcatt ttcttattgg tttgtaatgg ctacgtaatc caagtggagg
47761 aaacctgcag gaagcacct gtgcgcctct ggctgtggca tgcagttgtt acccagagtc
47821 gggggagaat gagtetgtge teactettte cetateetgt aaggtgatet ceaagettee
47881 agaaaaatga agcttagaac aaacagatgg aagtgtggcc ctaggtgtgc cctctcctgc
47941 gacctcatct acacatggaa cagagttctt tgattcgaca gagaagatgt aacctcggag
48001 aggctaattg cagagcagac ctcatcctag agtcgggaaa caaccaggcc gcgctgggtc
48061 atattcaaag gctatttcca atttgcacct gtcttccaaa caagatccaa ggctcttgac
48121 cgggaaaggt tcacgaggct aaagaactga tgtcagtcac tactgagata gtttctctgt
48181 gtggtcatcc gccctttgaa taaaccaacc accgcttctt ctgtgacaca acagcaacgg
48241 gatctcccga ggagacagcc aagacacttg ctgacattcg aggaggggga cgacgtgcca
48301 gggctcctgc ctgccaagaa ctccagttgt attttggaac ccgatgacct ccacacggtg
48361 tttccaagga actgcagtaa acattactac agagaagtet ttgcaccete tggtcagtgt
48421 gctactaccg caagacactt attattaagg aagatgcttt gggtcaggaa taatggacat
48481 cgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tgtgaacaga
48541 tgagaccaac agaaaaccac aaccaccaag actcaagttt tgggtttaaa taaagcactg
48601 cetteaatet gaaggttteg tgagetgegg caggageaca tacataceca gtaceaacte
48661 actgagagtg gggaagagag acgggggaac aggcagaggc gaaggcattt ccccagtctt
48721 tggaaatata atcaatattt gctaaaaatg gaaggaaatg ttggttctac ctactccttg
48781 gcttcccaca gatacctttt ttgctttaat ggactccaca caggaatatc taaaagacaa
48841 agggctaaac ggcactgaga gctgaactca aggctggcag ttggtcacag tgaacaaaac
48901 aaggaggaga atgagccacg agtgagaagg tccaagctgg ccatggaggg aaactctcat
48961 accagacate agaatgagta gtgaagacac cateettgag ggacteggga gacatecage
49021 gcacaggcag caacccttc ccgcctttcc ggtagtagtc cgtctcgtag atgtctcgtg
49081 tcataccgaa atctggaggg aagatgcaca gttactcggc tggaccaggt cttggggcag
49141 agccetgtee tteccecat atteaaggtg agacatgtte ttgetecaet etgagaggge
49201 tetageatca cagecactte acaggagaat acaagacate tetggtette ateaggetee
49261 tttaagaaat taactccctt ataacattta aagcgagagg cagtttgcaa aatcattgag
49321 taccatgatt tttcaagaaa atatacgccg cacagggtga ggatatagtt ttaaagtttg
49381 gtccaataca cgggaggatg aagaccccat ttacttggta gtgtgtctct actgctgagg
49441 aaaaggeett ttgecactee acagaggaca atgtacgaag taagaactea ggaagataaa
49501 aggacagcaa acagetgaga tgttcttcac caggetcetg gagetactac ccaacaccet
49561 ttcccaacac aatactctca ctcagttttg aaaatgtttt ccattttctg agtttcatca
49621 tggtgaatgg caggettgct tttttataat ctcacattac tgtgtcttta tccatttttg
 49681 attttccact caaccgcacc acctttccct cacataaact cttgcattct ccttccctgg
 49741 agggaagage tgctcaacct ttaaaatgtc ccctcgcacc tctaagtggt gccacaaaga
 49801 ggtgaggtac aaaaaaggca gagcaaaccc atgtagggtt tgctctgcat ggatgttaac
 49861 ccaacacaat tgacttgcac cgctgtctga gctactggct gcctctcttg aactgattta
 49921 gggtgtgtaa tccctgagat gggggcactg ggggacactg aggaatgcag aactcgcccg
 49981 aggaggaaaa aggaagtgct taaatctcat ctctgaatta atccagagac atgcaaatga
```

FIGURE 6U

```
50041 gaggatetge tttgaettge ataaaagggg aattetagaa aacaatetet eteectaaat
50101 gcaaaagaaa aatagaacaa cccctcttc ccaaacgggc acacacaatt taattctaaa
50161 aagaaaaatc ataattataa tagaaaatat cctcataaat gcgccacatg gttaagcaga
50221 aaatataatc cttactgatt tggatttaaa atggcaaaaa gcacacgcac acacaaaagc
50281 atttttccaa ctgtaatgca aaatgggacc aaagcagcct ctcggagttc ctggctgtgc
50341 tgagaagggt gcacagcagg gtaagatgag gacaggggca caggcttgct gtcccagccc
50401 gcctcctcct ccagetetgt cccaatccae teteactcca caggtgggga aagatggcae
50461 agggagggaa ggcacctgcc tcaggccact caggagcaca gtttcctctg aggactaaaa
50521 tctagatccc cacacataag ggagggatgg gaggcaggaa ggaccacaaa ggctggttaa
50581 gaggatgcgc ctcttatcta gaaactctgg ggcggggtat cctcttaagg gctgcccacc
50641 aagctaggct cccagggctc caaatatgag tgtacaaacc cagagacagg ctgggggtat
50701 cttcagtaac tccaatgact gacatctgtt.ctgtaacaca gctgcatgcc_aacaccccta
50761 actcctgcaa tcagcaaaga agagagcccg actttggata cctctctaga gatgacaccc
50821 atcgcttact aagaggccgg aatggctcat gcaaaaacca cttctagggt tgaggcaagc
50881 agaacatete caggacacaa geteaagagg eggeeaaagg ttagtggetg ategettetg
50941 ctacategte tgtccctctg cttgttctca ggatggacac ttgttatgtt tctgacctgc
51001 tggcctatcg cagtaggaag gtaaagtata tgcaggatgg ttttctgagc aaccttgtta
51061 ctactttttt tttttttt ttttgaagta aaagacaaaa aaacaaagcc aatatacaag
51121 ctgtaaggct ggggagaatt tctagccaat gaccagagat gtaatgcaat cagtgtttta
51181 ggatcacaat gtgttggcag caacaaggta ggctgagcag ctaaggtcat ggcaggaagc
51241 tatgcacgac agaacggcca agtgcttgga gctaccactg aaggatgcac ctcagtggct
51301 taaccagcag catacatcag gccctcggtt caattcctgg cagcaggaga ggaggagaga
51361 acttagagcc gaccagtcct atgagtgaaa agcagtcagc agtgatctcc cgcggactga
51421 catgaccacc atataccett cetgttacac tatgcagggt ttcaccatag gggcacctgg
51481 cctcttagga accccatggg cctattcagg gacaatgctc tttgtaagct gagaaacttg
51541 aggggtggac tggatggtga cattctcctc aagccaaaac cacttcagga agcaagctgc
51601 cccgattatt tctgtaacgt ttgacctggg gagcagggcg ccaatctgga ctaccatgtt
51661 aaggtgetet eegggttaca gecaggaata gacagteaca eegactacat acatetttge
51721 actcaagggc gaggcactgc tcctctcgga cataatgaaa atctctccag tggcagacta
51781 atgactgcaa agtcccctca gcacctgtga gttcagttta gcctgtgctc caatctggaa
51841 agcaaaggac acactccaa ttttgactgt gaaatcttcg gctaccatgc agttcctagc
51961 tecagecate tggateatet tgettaaget eggaggaatg aggaetagat tattetgetg
52021 cagattcaaa acaagacaaa gccatgagca acggagacct ttccccccta acctcctgta
52081 ggtctacact aggagtcgta aatgcatatt tacttagtct gagtaccaca ggtcacctgc
52141 agggagtcag gacttgctaa gaaggactag cacttctagg gaccagcaat ctcttttccc
52201 acccctccc atgcatgcat gtgcatggat gtgggggcct gaagcttatg ttgggagcta
52261 cettetacce actggttgag geagggtgte cetateaaac ceaacetggt caacatagat
52321 tgctctgggg atcccaactc atccttccaa ggctggaatc acaggtgtgc tgccacacca
52381 gcccagcett tacetggett etgacgacet gaactetggt cettatgeet gtgaccacec
```

FIGURE 6V

```
52441 cctccccct agtcttttct atttggagca ggacaaaaat gatttgaagt gaatcagcaa
52501 gtttaggcat taagcattct cagctccagc tagtttccat gttcctttgg cttccgccat
52561 caccaagtgt gagtaagagg aaggacagag aacccgtaca aaggccacgt gaaacagaca
52621 cacttectaa gtggattacc acgagetttg cttcccgtgc aagetgccag gacttattcg
52681 tetteattee ettettetaa ggtacaaaga taggaagaet aatgetttee tettggatta
52741 ctgttttcta cgggcactga ggataaccac agttcaggtg gagttcacct tggaggggac
52801 caaggacact gagcagcaat gaggaccaat atcatgtctg aagaggaggg caagatgctg
52861 ccttaggaac tgaaaagaat taacctaaga agtggtaaaa tcataaacaa acaaacaaac
52921 aaacaaaata agataagatt tatgtctaag aggctgatga gaatggctta gtgggaaagg
52981 tacctgctgt caagacaggg ggcctatgtt catgtcccaa gacaggtatg gtaaaagatg
53041 aaaaccaact ccctcaaggt ctaagtaggt atgcacatgc atatgcatga acacacacac
53101 acacacaca acacacaca actacacaca tacaaacata-aaaaattccc aaagctccgt
53161 caccccacte ccatgtgcaa aaccaaccat gaccettatg ceteagttte cetaactgaa
53221 aaccttctca tacaacacta tgaagccatc tcatttccta atgtatctca agtcacagga
53281 gagcatgace aggettggag atcacactat ttgggctagt atataggccc tttgtgctct
53341 gaccacgatg aacactcaag agcattctgg ctcttggcca gggttgctaa gttctcagca
53401 gatgccagac tctaggaggc cagcaacagc cctctagcac gtccaggagt actctccaga
53461 cgacatggca tgtgaggacc aagttgagct catttatcta tttaaccatt ttcactctga
53521 tccagggtct cttcctataa tctaggggat gtcctcagag gatgtgccat cacaggtgct
53581 teettgteac getgacettt ageacegtta gggtettaca tacacatgge aaageaggae
53641 ctctgcagtt ccgtgacatg tacttatagg ctcatgacac atactgcagt gtatgtgtgt
53701 aatgttgtgt aactgttcaa caaagagctg tcacttaaca tgtgaaaaac aaccaacaat
 53761 ggggacttaa ttatgtgcag gaaagggctg ggctgacatt ttgtcagttc atggtaatat
 53821 gttgtcattc ttttcttcat ctcgagaaag aagaaatctt tagttttgtt agagcctctt
 53881 aaggtgagca cacatccata cacttatcta agtaaataag caaacagcaa tggggggagg
 53941 tagaatacgc tgaagccggg gtgtatacac tgaagctggg tatatatact ggagctaggg
 54001 tatatacact gaactgtgga gtatacattg atgctaagat atatgtaagt tatttttaa
 54061 aaaattotga catgagttag acaaaattta gatotgatga atttaaagat taagttttac
 54121 ttccgaaaga gactttcgta atccaacctg tctctttaca ttgaattaaa attttgtttt
 54181 atgtttgtgg gtgttttgcc tgcatgtgtg tttgtgcact acctgcccac ggaggcccat
 54241 ggaggccagc agaacagtga ataccgacag ttatgagccg ccacgtgggt gctgggaatc
 54301 cacccagggt tetttggaag agcagccagt getettaact getgagecat etetatagee
 54361 ctttctctct ctacatgagg aagcggaggc ccagaggcat ctgttaactg aggactggag
 54421 gtaaccaatg gcaaaaacag ccccgagagc acaagttacg ggtttactct gggcatgtgt
 54481 caaaggcatt aagcacattc tgatgttagg aggtgcctta aaggaccact ctccagtctc
 54541 cttctgtaga ctgggtatta ctggggtagg atgctgctgc tgggagaaac aggcatagct
 54601 ttgtggctct gctatcaatg catacaccgc cttgtggctc tctcctgaaa cttcagaaac
 54661 acacatgagg acatttgtga acaggtactc agaactaaaa tgaaggaacc atccatcact
 54721 tggtagatga ttacgttgtg gaggaaaaga aaacgaaagc ttctacagag aaggggagca
 54781 aacccagaaa gggcccgaga agaggaagtt ccccttacag cgaatgcaga gacaagctgc
```

FIGURE 6W

54841 ttagttagcc acaggtatca aagccagggc cgaagtgaga gcctcagagc ctgaggcagc 54901 cccatgaaag gcatttggtc cagcaatatt tctcaacacc cccatcagtt aactcttagt 54961 gaggacttag aagccaaact taagccaggt gcttgtggtg cataccttta atgccagcac 55021 ttgggagaca gaggcaagcg aatctctgag agttcgaggc cagcctggtc tacgaagcga 55081 gttccaggac agccggggct gcacagaaaa aaaaacaaaa caaaatgctg tctcaaaaaa 55141 caacaaacaa acaaacacaa aaataacaac aacaaaaaag aagtcagact cacatatgct 55201 aaaaagctgg ctgtgggcta acacaacaga aggggacact ccacagtgac taatcaaaaa 55261 attacacagg acctactcag gttcacagtt tgaaaatctc actagcctta agcagaatca 55321 tgcagctgga atggttatca tttaaaagcg caggcacaat actggcttat tgcctagcct 55381 ggggagtagg ttcagggttt gagaagtgtc tgaagcagtg tcggggcaag gggagagcag 55441 tgtgtgccat caaggtaagg atagcatgct cacatgtaca cgtgtgtgtg tgtgtgtgtg 55501 tgtgtgtgtg tgtgtgagtg tgtttgtgag tgtgtatgcg agtgtgagag tgtgtgtgag 55561 tgtgtgtgtg tgtgtgtgt tgtaatgggc tcctgaggaa acagtggtct cgtgcacaga 55621 ccgggctgcg agtcactctg gccaaaacct ctgacaacct gaagagtgac ctttattgag 55681 tacttactga aaaggttacc agccacggtc atgaccctga ggtaaagaag aggctcaccc 55741 cgaggacete gagagtaaac gtatgetagg cagteaagtg tactggaaag teagtggggg 55801 aggccagccc ggcctgagtg ggaagctgtg ggaagggttg gccatgacac gtggtagagc 55861 agctggggtt ggtgtaagat gtaggcaggg gtagcgggga tgcagaaaca agagcacaga 55921 gatgctggag gttgaatggg tgggatgcag agacagacct tccaaagatc ccagtctgcc 55981 tacacttgga caatcctata tagagggaac tgacaagaaa gcatatctca aggcactcaa 56041 ggctgagaag caaatggact taaagacacg tttcctacaa gccagctcct gaaaaaagtg 56101 gaccaagcaa gataacacag cgaggaacaa aactgacctc cacttctggc ctcagagacc 56161 ggagataact tttgagatca ccgcgtgtca ttagttccat gatgaccagg gtgggctggc 56221 cttgggatac cacacccagc aaccggacct ggaggaatca agaaaaggac tcagaggggg 56281 aggggggcat cccacatgat gacctacgcc tctcggaact gggtggtgct ggggcctgta 56341 gccaggagca gagttctggt gggagggcga gggcgaggct cccacctcaa gggtctgtgg 56461 ctggccaagg acatacaggg tggtcctttc tgtccatact ttctgtccat gtctcatctt 56521 ggcttcttac cacatggtga caattgaact ccttcatcac cgaggcctcg ttgagaaact 56581 cgattettte acgeatactt geageetegt ttacegtett gatggeeact etggtttegg 56641 gttcatcctt gaccacacc ttggccactc cttcatagac catcccaaag gacccttgtc 56701 cgagctcccg gttcatggtg atcttctctc gagctacctc ccattcatca ggcacgtaca 56761 ctagtaacag acaggatgga aacggccctt agacagagat tacaagatgc tgttccctaa 56821 gacccaccaa ggagaacatc aaggtacaaa cagtccagca cgggtactca atctctgagg 56881 actccatgac actttgaggg tggtactcgt agctaagaac cagaaggaaa ccaagaaacc 56941 taagatagga aaaccaaatc aaaccaaaca acagtggttc ctttttcata tccttggcaa 57001 aaccccaacc caacaaaata aaaaaagcaa attagcccta agagacaaag aaagtgggac 57061 ttctgttttg cctgtcttca tcaagggatg gaaatgtagg tcagaagggg agaacagtgg 57121 gaggggaaag gaccaaaggg ggtcaaatct cctcctcct ggatgaagcc agaggtgaga 57181 aacatectet geatggeetg ggtgeeagtt tacaggeeac ceageeceac tgtaggeett

FIGURE 6X

57241 cagcgcttga agtcgtgctg gaagtaagac atatactgca ttttaaagac ttgcttaaaa 57301 caaqtaaaaa aaqataactt ttaaaaqatt ttaaaattta cgtatacatg tgaaaatctc 57421 tgagcacaca cacatgcaca gatgtgaggc accacccgtg tttgggtgcc tgggaaaccc 57481 agaagacagt gttggcttct cggacctata gttacagatg gcgggaggtc tcttcacaga 57541 ggtgctggga actgaattag agttctccag aaggtcagca aggctctcaa ctgctgggcc 57601 cattttttt tccagctttg tattccaaag acttggttaa agcaagttta aaaagatagc 57661 ttttatatta actgttggat gttgtgggct aaatgaaaat tctaacagat ttatctcatc 57721 agcttttaca cttaaaaaaa catggctact agctgggtgt ggcaacagga aactgcagtc 57781 ccaccccagc ccactgggca tggaggttgg agatggggtc tgctgaacta aaggcatctt 57841 cagattgtgt ttcaaaacac caagacaatg tgtcagccgc ctgggatgtc tatcagttca 57901 cgcacttcat tccacttctt ccatagccat gtccgacaac aagctcaagg tggctgagag---57961 ggagaaactc agtcaacact aaaggcagag actcaagaga agagtcctca gccatcaaaa 58021 gaaaccgcag aaaaggagat gagaggccag ccccacccc cacccccgca gagcgctgag 58081 gtaggtettg tgcactacaa gcactgtete cetatattee tecatacage tgtttaacte 58141 tggaagctgc agaggttgga tccagtttaa cacaccctgc tgcccctttc accgagatct 58201 agtgacgata cagactgcct gccttttcca cctgagagga aggagaactc acacgttgat 58261 gaagaaaaa gcagggttgg gagatgaaac ccagggttca aatcccagat gattcaaggt 58321 gctctacagg ctgtaaaatg cagtttaatc ccagggctgt gctgtgttgt ttttcaagtg 58381 atttgactta gtggaatgca tactgtttta aaaccatcaa ttttgtgaat ggctgttttc 58441 cctgcatgca tctgcactgt acgcacatag cacctgggtg ccactggcac gtgggttctg 58501 ggaatcaaat cagggtcctt ctagaaaagc agccagtgtg tttaactgct gagccatctc 58561 tctagcccg gaatgcatga aagtattaaa acttaacaca agaagccaaa ctcttgccta 58621 acacaggtga agcctaggag cccccttcca ggggatctct agtgagggaa gtgagcgctg 58681 ggatggaggg ggactcagta gtgaccccac ggctttggcc tgcactctgc aatgccagga 58741 acctccctga cacggacctg aacagaattc cttctccagc ttccattttt ggttatgctt 58801 gatctggttt gagaaaaata aataaacgaa tagttctcag aaggaagggg gaagagaagg 58861 aaagaaaata agagaggcaa gtaagaaaga ccaaacacag gctccatccc ataacgccag 58921 tgggtacagc gagaactgaa atcatatcaa attaatacgt aagatctgga aagagaatac 58981 ctgctccatg agaaccataa cctaacagag ttactgacag ccctgtctaa cagaggatgg 59041 ccagcaggca tggcaagaag gaagccctag cttagagaca ggcctgggag gggaatcacg 59101 gctgtgtttg tttttatgct tttagatgcc gagctgcagt tggaggtggg agaccccacc 59161 agcaggtcat cacggttatc agtcaccctc agagcacaag cccttacttc taagtgatgt 59221 cttaagggaa gggtgtttat tataaattcg gggctgggga ccccattgac ttgtattttg 59281 aagaatggaa catacatctt gtggtggttt gaataggagt ggcccccaca gactcacaca 59341 tttgaatgct tggtcattag ggagcagtga tacctgacag agattaggag gtgtggcctt 59401 gttggaggaa gtgtggcacc gagggtgggc tttgaggttt caaataccag gcctatgtct 59461 tgctctattt ttgctgcctg atccagatgt agaactctta acccctctcc agcaccatag 59521 caccatgtct gcctacatac catcatgttt gctaccatta caacatgggc ctaaacccct 59581 gaacctgtaa gctcctttaa gccagccact ttccatgaga agagctgctg tggtcaacgg

FIGURE 6Y

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59641 tgtctcttca cagcagcaga acactaagac acatacttat ctgtctactc acttactctt.
     59701 acttactggc tgatttgggg acaggactgc tctatcttgt tcatacttgc cttgaacttg
     59761 ctatgtaatc caagctagcc ctgaattgac aacttttctg cctcagtgtc cccagtacgt
     59821 ggattccagg tttgtgtggc cacatttggc tcctgtgcat gtttttgtat ttcatggaat
     59881 atgtatgtct ggtaatttct caactagaat tctgtcttcc atgggcctca gacaacttgt
     59941 gaccetgeag aggetgaget tgetgaggag ageagagggg gaaaggtett tataacacet
     60001 ctctgtaagg atggggacca ctgtctccat ttattacctc taaggatcca ggctggcttt
     60061 taatgagaat caactacacg gcttgcttgc tgcagagcat ggagftaaaa gcccatcaca
     60121 tecattecet gggaggtece tgaagttagt ggteteaace ettttetaa aeteaateea
     60181 gctgccgact ttagccagag tacctcaget ttgccagcca gagctgttca taaacttcgt
     60241 acaatgttat cagcactttc ctgtagggca ttctcagtgc actcttgaca acagcaacat
     60301 gcagattaac tetgggagaa agacgttttt aaagcacett teagatgeaa tgtcactttg
     60361 tagetetttg aggeaaaagg ettgtgetge tgetgtgett gteaaaagge caaacaaace
     60421 aagtgcagat gaggtgacag tgttctcacc tgttgacctg ggtagtgaca agtttgttct
     60481 tgctttgttt tgaagggggg agggagacta tttctctggc acctcttttc tcttttataa
     60541 ttattgacct agacacatg gctgcacggt tctggctagt taggggacgg aggcaaggtg
     60601 ttcagatcat ctgaggccag gagtttgagg ctggcctgta taaacaatgc atatttagtt
     60661 tettgatttt tgcccgtttg etttettgtt tgttttggtg gtgtgaggac agaacccgtt
     60721 ctggaacacc gtaggcaaat gctctatcac taaactacat atccaaactc acttcatttg
     60781 tttgtttgtt tttaggagaa agatagtctc cgtaagtaac tatgtaacta tgctttcaag
     60841 tgtggtgctt accettctag tgtattttct atgctttata ggcacaaacg tatgcacata
     60901 tgcctactta aaaaataact ctgcaagacc ttttgcaaac agaaataaca tcattattct
     60961 gcacctgatt caaattcaga agaggctgtt cttgactggc tttactatac acataatcca
     61021 gttataaatg attaaagaaa ccatagtaaa accatacgca cttacatggt gcttttaaat
     61081 tacaaagggt tttctctttt ttttttttt cccatgtgag caggataatc aatcggactg
     61141 tgtcttatct gggccgcatc tacttacact tctggagcaa agaaacattc ctcctgaaca
     61201 aactectgeg etgeacagae ecceatetaa ecagatteee tacatageee ageaacetea
     61261 cagctagete ttecatacae cacateatga ggatteagga ggaaggettg ggatgteeet
     61321 tgtgcagact tcccacggct cagctgtggg agcctgaaca agtccttctc agagattctt
     61381 tttttgcctg catctagata gacatgagaa agctccaagg gctaatcgag gagaggaccc
     61441 ctccccaget tacttagaag gtctgaagec aagcataage getaggggaa aaaaagagac
     61501 cagtagctaa aacacaggtt ccgagtcaga acttctgagc catttaatta aatgactttc
     61561 attagttact gccaaaggga atgtaaatgg gtgcataggc tgtatgaccc taatcaggat
     61621 agaacagcag agggattcca agatcataca acgctatata gccctcactg gccagggaac
     61681 gcctgcagcc ccaccctgag ttgataccca ctcaggatgc ctggctggct acagcagtcc
     61741 tctgactaga cggtagtaat tagaatgctc ctttcactct gatgccacac ttcaagcggc
     61801 taactgaact gcttagcaga ccggccaccg gcatctccag agcctggttt ctactggggc
.... 61861 atctgagagt cccagaatgt ctgacagtca ctgagtgcta aagatgttat taaaagacaa
     61921 gaaggaaatg gtaccaaagg cagatcctgg gacaaaggta tctcaaaatt acgcaacgct
     61981 tttctccagt cagcacctga cagctcccat attcccacac cttggccagg acgcttacca
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FIGURE 6X

62041 tcagctgcgc tgaaatactc ggggttcaca gaagcataca gcactccatt gcccaacctg 62101 ctgttatttc tgtcaaaaaa aaaaagatga aaaccaggtc aacaaatccc atctctatac 62161 atttctgtaa ataccttttc ttttcctttt tttctttctc acgagttatc ttgagcaagg 62221 gacgcaaacc atgatcactg ctgacgggac ccttgcctgc actcctgatc caggccccgg 62281 tatctgagga caaatctttc cacttttgcc ctggcctcag attagagctt ctaaagaaac 62341 atttgtttct ttgcttcact ggaaataaca aggcccactc catgggaagc taaactggca 62401 tgcttggaga agctcttaca aggcagcaat ctgtgtgcta gaacagccag aaagcagacg 62461 acgggtacag agaaggaagc aacccctctc ctgttgctgt tagtcattag gaaatgtcct 62521 tttttcccct ctgaagaatg tctgactagg aactctggct gtccagtctg catggtattt 62581 tececeacag acgagetatg tteaagttea aateateaag ceaatgegee acaagtactg 62641 tetteegetg geceaggeac teacetettt etatggaaga catacageat gataaceage 62701 cccccaacga tcagcaggat ggcaaccggc agagcaatga tcagatgcat gaagttctca 62761 tacgtcgctg cagagacaag gaagaaacag gaagacgtca cgcacgaggt gaataactgg 62821 ctcacttcat ttctgtgtat ggttggaagg atgataaaac cgcctctgga atagccttta 62881 ctccctcatc tcacaagagg agtcttcgag gagtcttcta gtgctgggac aagaccagca 62941 gacaaactga attgtttgga gaaaggtaaa taaatacaga ctgaagcaca cactccttta 63001 aagcactgca tattctgaat acagcaagta attctgaagg caagcccttc ctgtgtgtag 63061 ttttgtggaa gtttagetga aggaaaatga gcagacactc acacacttac tagttgctca 63121 cgctattctt atcttttaag aaagtcccac agacagettg ctcgccactc ccgtcccccc 63181 aaagcactgg atgacactcc ctgccaatgt tgctctgagt gttctacaaa tatgtaaaac 63241 caattcaagt ctgaacttgc taccagtacc tgggtggtaa gtaccacagg atggcctcca 63301 ggggttcagg tctacacctc tgaaaatcct gagaattctg ccagattcaa gaactcagtc 63361 tgtggacagg tggattaaca tggatgtacg ctgggcatag ggggaagaag agatggggga 63421 gcgagggttg cttcccctag ggaaacggct tcccgtgcag aggaatgtct tgcagagtgt 63481 attgaatgat gaaggggttt ggttccagct aagtggtttc cgccccattc ttcagattga 63541 gaggagtcag tggtcagcag ttaagcctat gaactgcagc agtgaccagg atattgagat 63601 gttcctcagt atgtaacact ggcaccttga tctggggaca accaacagct gtctaagtgc 63661 actgaaggcc tgagcactgg gaggaaattc ttgcccgatt ctgtaaacct agctgactct 63721 ctgtagtgtc gtggacacta gagaagaacc tgctactagc acttttctga agcagtgagc 63781 ttctacccac agataactag ctctcaggcc tcgccagaga agcctctttc tgcagcagat 63841 ggaaaggatt agagaaaacc atgactggtc aaaatgcagg gaaccactga ccatggggta 63901 cccatgccca actgatgata gacccacacc acaaccccca caacaaatgc tcatggaaca 63961 ctgcaaaata agtgcgtggt acgattctaa gatccagaag cccagggtgt ctgctgaggg 64021 atgccacctt ttatgtaaga caccacccgc atgcgtgaat cccaacaacg cggttaccta 64081 aacttgcgta atgacaatac cagttcacat gctttgaagt gtggggaatc tctgaagccc 64141 cacccctaga tgagaagtta ccagcagtta atggctgctg agagagaagg aggatcagtc 64201 tttatcaggc ataagcttgc tgataggtta gccaatccca cgtggtcatc cctaaacaca 64261 tacatgtacc agtaacacta aatgagcttg gcagagcatg tgtgtatatg tatgtaggtg 64321 tatatgcata tatgtatata gacatatatg tatcaatgtg cgcacaagtt gcttagcaac 64381 aataattaaa gtagtcatgg aactgagaga ggtgggcatg gaagaagctg ggagagggag

FIGURE 6Z

64441 gagccagatg gtgtaaatac agtactcatg tcagaagttc taaaaggcta aaactaaaac 64501 aatgaagaag aagcatcagt gaactcttcc aaggccagac tgaaaacgga ttcatgtact 64561 gggaagatga gtgtgtctga ggacacactg ggggcctctg cacactgcca ggtctagagg 64621 agttaaggga acgtaccagt ctcctgtggc atgctatgca tcgctccagt cagacctcag 64681 gaagaaatcc ttttccataa gcaagatcag agaggcgtcc taactttgcc agggttgcac 64741 ggataactga caagttccaa agtcagagcc tggctttcct gcagccctgg ctcagaacag 64801 ccgcaaccca gtaactggga ggctggattc ccgtcatgta ccagaaagaa tcagtaagac 64861 tccagttaat atgggaaaac aaacaaacaa aaatgagtat gcggagaaga agaagcgaag 64921 ggctgtgagc tttcatctga gagcccaacg gaatgcagat cagggaatga aacggaccga 64981 agtgcctcca tgaaagcact ttagatttca ggcttataag gagtctatag caactattgg 65041 acacccaagt tgacatgtct acacaataag gatggcgttg tgggtaaaaa cacttgctat 65101 gttaccetgg caaccagaat tcaatccetg gaacctgaga atcaactctt caatgttgte 65161 ctctgacctc tgcacatgtg cacaccaagt acacaccaac agtatagaga tgtctccttg 65221 gaaaggaget ggggaeteag tggagaeatg tteetggaee gegageeact caccaatggt 65281 tggtctacct ctaaactcta ttcttaatcc tgaaatacta caaaagccaa aattaagtct 65341 ttttcaaaat cgatgggatt cagcaccttc cagtttctaa aagtactccc acgtgcgcct 65401 ccctgccaga gagaagctcc gagctttcct tttcccctag gagaattcgt ggttttgtgt 65461 tectgattet acgggteagg ttgttetgtg ttetttttga gttteacatt teaacaggga 65521 cacagaggaa ctggaacaca tccagaagga caaaactgac agaaaattgt ctatgcaact 65581 ggctttcaag aaagggccca aagacctgag aatatttaat cgggagggaa gaagtctgaa 65641 gaggagttta atagaattca cgcaccaaga tttccttaaa aacagcaggt gatgccgagc 65701 tttcaatgtc ccctctgag gattagaccc aagaaaactg tgctaaactg cgtcttgtcg 65761 gacaccggga aaatttccca gaagccaaga gcgctagcac gcagcttcaa tccccctgtg 65821 ggatgtgcca acttccactg gagaaacccc attagaggac ctcttaagag tccccagtgg 65881 cattgcagtc ttagctttac aaaggcagct acaaacatgc cctctcctaa gaaaagccag 65941 actcacttag cttcagaagt caagactgct ccttcagaga acaccaccca atttccagaa 66001 ctccagtgtt ggcttagtag cacgacgtgc tacagataag cggaaatgta ccccaaggca 66061 gagatgctca gggcttcgtt gccggcctgt gacgttattg ggaagtagtg gcaggtaacc 66121 ttaggagctg ggttctagag gaagtcaggt cactggaagc aggtgtcctg tgagagaact 66181 gtgaaacccg ggccctttct gccttttgga ggtaaccagc ttggttccat catgtgcttc 66241 ctgcttctga cattttgtct cagaacagcc caaaagtaat agaatcaaca gacagagcac 66301 gacaaccccc gaaactgtgg gggccacccc tctaatcatc tctgggtttt gccacatcgg 66361 agagctacag taacatcaca atggagagtt agcacataag ctaactgatg acgctaggct 66421 acccagaaaa aaatgagaaa attcagagtc tacctgacag aactctcagt ctcatcatct 66481 ctcaatctag acacagtagc agcagataca gggaatccta gcttcctgct tacggttcta 66541 tttacttctg tctttgtgca gtcacgatga ggattttcga atgtcttgcg tatctttgaa 66601 tatctggaac tggctaggtg ggctatcgaa gtgtgaactg acataaagtt atacatgtat 66661 acatatttac cacatacaac atatcttaaa gcatgtgtac attaacccaa tcagcatcag 66721 cattaagtcg cattgttacc atttctgtgg tggtaacact ttcttagcaa tattcaataa 66781 tgctttatta accatagcta gtgtgttata aagctcactc ttctatctac ctaaaattgt

FIGURE 6AA

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66841 gtaccttttg agcaacaccc cctaagttat gttcccctgg taacctgcaa gactctgagt
 66901 tcaccctttt agatttattt catatatacg tgagatcacg tggtgtttcc ctttctgcac
 66961 cttctattaa cagtattcca ttacatatat ggaccacatt tttacccagg cacctgctgg
  67021 aggatacttc attgtttggc tactgtgact agtgggccaa aaaaacaagg ggggtgtaga
  67081 tttcaacaca actaacttcc atttcttttg gactgggatt gctggatctg ttgagacctt
  67141 gtctgaatca agaatccaga agagaccacg aagaacataa gacattagga aacaacagtt
  67201 ccccacaccc tagattctag cctcaaagct gagctgagat tttggggggt ggggagtgca
  67261 aaaggaattc acatttgatc ctgtatttgt ttggatatta catgaacacg aaataatcta
  67321 aaaaaatttg gcttctcata agacacgtaa aaattcacta tgtattattt caccaaaaag
  67381 actcaatttt ttttttttt cggtcaaaca agcatgcagc ccttgcattt aacatttcac
  67441 aacatttact tttaaatctg aatcctaaca gctcactcag tggtttctgt gaactgtgaa
  67501 acattateca ctagggtggg tetgtgcaaa ataaegcaca gagtatettt caatgcatee
  67561 tggtggatgg tgaagagcac agaggagggg aagactctga ctgggatgtt gtcctgcaga
  67621 ttcctgtccc ggagcagtga caccagacga tccctgggga gacgctgagc gctgggtcac
  67681 cctcaccgac caggcaggag acctgatact caactcaatg ctttgcaaaa tgcctccaca
  67741 cctgagccac gatgagaaca agatatcttc taggttgtac gatactcttc tgttactcac
  67801 aagagaagge tecaaggete ageaeettee eagetetggg atgtgegtge gagtgeaegt
  67861 gcgtgcgagt gttggggtgg ggggaaggtg atggtggcac agatgtgtgt ccactgtgag
  67921 taaataccaa gtgtcttcct ttctggcgtg acacctccgt tttctagata cggcttctcg
  67981 ctgaaagcaa aggtcaccaa tggaccattc tggctagcta gggatctgca aaactttgac
  68041 tgtcgatctc ctgagcaccg aggaagcaca ctaccgcccc tggtttccgt caaggacttg
  68101 aacttagate tttaagcagg cacttteeet agtaagceae etecteaace cagecagete
  68161 tgttctaaca gaaaaccaga gagccccaga agctcagggc ttctgagttc tggcccagcc
  68221 agctttgaaa tttaccgtgc gtctccctca ataagactta cttttggcgg ggacatagaa
  68281 gaacacagga tetgtecatg acceattece agagagggag gtageetgaa teegggetgt
  68341 atagtteect gggtttagae ggttgagttt ggeeceteeg taetteetgt aeteetgtet
  68401 ggacacacat tecegetgat cetatggaaa tataaggegt taattteeta caageatggg
  68461 tgagatctga catctgtcaa ctcaagtcat catgctgtga ctccagctgc ccaacctctc
  68521 cttacattgt ccagagtatc aacataaagg aagcaaggat accggaaaag tggttttcag
  68581 gttggcacat ggaaaatggt aatcaaatat gttggtaatt aaatcaaata tgttggtaac
  68641 tccagaggaa taaaagatca tcaagacgtg tctagtctgc ggctggaggc ctagctacag
  68701 tttcattgtt tgtatgaagt ccagccagct ccatgcaccc aagttactac tcaataaaga
  68761 tggcgttgct aggaagacct ttatccttcc cgactgccca tctttctccc ctgtctgctt
   68821 agcagtcage agacaaccag tatgccatag cacgtgctct cagcgctgaa acacatgcag
   68881 etgeaggeca tggtatecet ettacetega ettgegacee gtatttaatt teatacatta
   68941 ggatcaatcc gttggggttc tcgggttctg gccactttaa aaagatggag ttttcgggtc
   69001 ttggctccca ggtcaccgga ccagggatat catctgctcc ttctgcataa ttaatgtaaa
69061 caagcagtca aattgggttt aggtccccag aaagaatgat aaacggtgtg ctaacttgag
   69121 aacaactgtt cccccaatcc ttgtatatac aggactctgg acaggggacc ttgtaggagt
   69181 tettteetga gatggetget ggcacagege etceatecee tetgactgaa aaaacetgtg
```

FIGURE 6BB

69241 gccaagtaca agtgatcacg cctgaaaaac ctatgtaaca ttctccaggt ccattttcct 69301 acctaaaaag ttaaaaaaaa aaaaaaagaa cccttcaaac agagcggccc tggggaaggg 69361 cagtgagcga cagcgtgctg agcctccagc tgtggcactg acacattcac agcccacacc 69421 ctcacacggg agggaggaag ggccagttcc gaggctggcc tctgaggcag ctgttccggc 69481 cactgtctct tccagccacc gctggcctca cttctggtgg tgaaccacag ctgttgggtg 69541 acagctgatg acagccgaga gaggcctggg gagataagct gttctctgtc tcttctagga 69601 ttgggaaact gaggcacggg tggctgaggg ctacacggga gtgccaaagc cgatctcaga 69661 agetettaet geoccagtte ceageatget ttgtteteee caetgaetga caeeteetee 69721 acgaatgaga agtggcaaat ggctggcagg gtgacaggca gtatctaact gtaggaggag 69781 gcccacaggc tgatctagct gaccacgagg acaacgcttc ctctgcatca agctttgaga 69841 cctggagggc ccctcacagg tctgtggtgt gctaaggcct ttgtgctctc agtctgtagc 69901 ctetggeact gagagaagac-aggactttag gagattggge-ttcaatgaaa gaagtgatga 69961 aatacgatgt gttgcttcat tgcaagcccc aaagcagtga gaggcaagtg cctgtggtct 70021 aaaactcctg aaacactgag accaaaataa acctttcctt ctggtaagac aactgccttg 70081 ggtattttgt aatagcaaca gaaagctaac tcattcagct gtgcacagaa gggcacaggg 70141 gtgggtgtga gcatgtgcat cgtgaaccaa gccaaggagt gagagccctg aaaggggctt 70201 gtaaagagtg tctatggtta agtctggatg ggagctggca ctaggaatac attctctgtt 70261 ccttaggcac etgacggacg acgttgtgta ccaacaacca cacattcgta ggcctgaatc 70321 taagggctgt cagcctcccc cgccttggct gtaagttggc ggcggggcta cctgccgtac 70381 ctgctggcat ggttctcgca aagacgaagt tggaggcgct gcagcccagc ttctcagcct 70441 cgtggttgca gctgtggata tcgatgcggt acagagtgaa aggccggagg ttggagatga 70501 cagtcctctc cttgttatcc actctgctct caaagaaagg gtactctgtc tcgaactcct 70561 ccgggtctgt gatattgtag gtgtcagcta ccgtggtgtt cctgcttcgg ctggacatgg 70621 tcgtgttggc cacttgcatg acgtctctcc gcctcctttc gggcctgcaa ggaggagaaa 70681 gaaggtcagc tgctaagttc tttagttttc tttgtctttt ccatggctag ggtagaagta 70741 ataggaaagt cctagccttg aactaaaaga aactacttag gctccttgga taagaaccaa 70801 caaataacca ggattttcgc cttcacaacc catcctgtac tctcttgaga catcctcaga 70861 gaaacatgtg cacacatggt tctaggaaac agtgtgccag ccatttttag ccagacagtg 70921 ctctgtttta ccagacagtg ctacttggtc aggcctgata actgagcatt caacacgaca 70981 aaccatcagc ctcataagac tggttgggaa aggtgaggcc taagacacac aaggtagaag 71041 agacccaaag tccaacagta gtggcttctt tgatcttctc tgaaatgaag atgccctagt 71101 ttaagcagct agcaagtacc taaatcccag cgcttttcct gaggaacagg gtctcctatt 71161 gatgaatgcc cccagtccct agtacacagc atggtcttgg aggttcatca aacctggctt 71221 tgcatcctcc ttggcagtga gcttgtctgt gataggagcg gagcctctgt tactcactga 71281 cttgtgttag cttaagaaac tacagaaaag caacaggaac agagtctggg gctccctctc 71341 ttccagaaaa aacttctaac attcataaaa actgaaaaaa aaaataaata aaaatatgac 71401 atcagataag cagccctatg ggctggaagc aaccctcagg ttgtctgcag gtgaacagtg ..71461-ggcaagctgg gtattgaggc tgttgctggc attgcttgtg acaggacaaa ggatgagagg 71521 aacaggtggg actgcactgc gtctggtaag aacatgacag agtaagacaa aagggagcct 71581 agagtacggt gctcgaggcg ccttggaagc catgcccaag gcctatggat gctccctagg

FIGURE 6CC

```
71641 ccaacatctg ggagagtaca gtagggagtt gggggaaagg gccgcatgct ccctggtctt
 71701 cagcagatgg atctgctacc aaaaccatag ttctttgtcg ggtactgaca tgccagtttc
 71761 cattgaaagt atatcaactg ccataccagg gcccatctca aaagttagga atggggattt
 71821 gttatcataa tgctggggaa agagatagga aatgagggta ctattctacc atgctcacac
 71881 ccagcaaacc ataaaccgac caatcaacaa accatggaag gaaagataaa ggaaactact
 71941 ttttcaggta tgtgtgtgcg tgcatgcatg tgtgcgtgcg tgtgtgtgtg tgtgtgtgtg
 72001 tgtgtgtgtg tgtgtgtggc ggctaggcag atgttcaaaa cattattatt aaatttcctg
 72061 cctccctttc aaaccagagc aacacaaacg tgtgccttca tgtaagaagt tgcttgtgtt
 72121 tgatttattg caaaatgata ctggtccact tcttgccttg acccaccccc aacaaactgg
 72181 gctatagcac caagcagact cagtggcctc cttacttata aacactgcac tcttgcatat
 72241 tattcaacag ttactgtgga cacagagtca ggaccatgaa gggaggcaat ataggcatca
72301 gaaggctagg gatgattcaa acagagtggt ccaggggggtg gcaaacagca cactatcagc
 72361 tttccttact ccataaagta tcctgatgct actggaaaaa cttgtactgt ttaacatctg
 72421 agaatgtttt agtgacagaa acatttttga agcgtcttca aaaatgaaga tggcggccaa
 72481 tgaaagccat ttactgatac caagtttagg aagtaacttt ataaatagta gcctccactc
 72541 tactataaac tcacaggcaa agtcagacaa tgcagaaaga ctaaatctga tatatttgcc
 72601 ttcagcccc agataaacgt gcacctagaa tgacatgaag gtaggaatag gttttaggta
 72661 aactcggttg tatgatgaca gagttgctcc tgtcatctag ggtgctcctt tatgggacct
 72721 tgcgagacct cgtatagatg tcagatcctt gcctcggtag gaggtaaaaa acaacccccc
 72781 aaaccctaat ggccaggtgt ggtgacccct atctgcatgc tgggtctgtt ttaggacact
 72841 gaggtgagga cacttacacg aaggaatgtg accgagagaa aattcgtttc aaacccacag
 72901 tacaageeet geaeggteee atetgggtea accaeageet tgeegeeeaa teaettagee
 72961 tagegttaca cagetgatga taacageagt cacaaagtga tgtcatetga gtataactaa
 73021 acaccaaggg ctttctgcta tggtcggtct acccttggtt ctcatgctgt attgttagat
 73081 gtttggtcac tagtggggca gctgcaggag gaacctttag ggaatggtcc tgttaggggg
 73141 agatectgat gtageaaaca agetaagtge teaacgtetg tteagettee tgtetgeeet
 73201 gaaatcgctg ctgtgccata agtactttgg ccatgcgaca cacccaaaga tgccttcatc
 73261 aacaaaagcc acactggctc cttgttcttc taactttaaa actgttgagc tatgcacacc
 73321 actaagcatc acgcaatttg ttagcaacaa tgaaagaacg acctaaacct ctggccatgc
 73381 ctacaggagt cctggatttg actgacaccc agtatagggg tgggtatggg aggacctctg
 73441 cctggcctct ttgggacgct ccatacctgg ccactctcat ggctactctt actgagtgtt
 73501 ggttcaggtg gaatgctcca catagataac ccaatgaagg gacggaggtt tggtgttgga
 73561 gaatgtaggt ctgagaccca agactcaaac agacagtaag ttagtgagga tagaggtcac
 73621 tgcatccagt ttttaaagca ccttttgatt tgtttcctgt cttcaggtct ttaaattcaa
 73681 agaaacagac atgacacaga ggggaacatg ggtaaaagcc aaaacagcag cgcctcctgt
 73741 cagetgactg caatagcage ccageagect gecaaceaac aggagetget ccgegtgggg
 73801 cagatgggag catgcacagc ctaaggcatc aaatgtagcc tttccaaagg gcacactcac
 73861 ctgggcacaa agatggaatt gtgaaggaaa ttctcaaaga ctttacggta ctcagcctcc
 73921 teetteteag cetgettete agetteagtt ttagggeaag egeageatgg eeetttatea
 73981 ccaccacaca cttctgtctt gggattttcc gtcacctcct ccacgtcgat ggtaccatcg
```

FIGURE 6DD

```
74041 gcgtactttc tgatgggtat tttgtctgct tggggaagac cagagatggg aatgaaagcc
74161 agaagcaagc cctgcaacgt gacaggtgtg accctggggc tcaggttctc tcagacaaca
74221 gacaaggcca gtggcactgc ctgcctgctg cctgccagcc cccagctcac ctttggagca
74281 gtagttgtgc cggtacaggt aaccatcctg gggctgccgc tgccacctca caatgtagta
74341 actcaagtta ccattgggca gagttggagg attccacttc acaatcagct gagaggaaga
74401 gtttgatgct gagaggacat ctaggggaat ggaagggact ggaaagaaga acaaagaaca
74461 tttcagagaa tagaccggaa tccgaggttg aggttatcag gggctcgatg caaaccaaca
74521 ggaagetgca ggettgacet gggcacagag atagcaacgg accaaccaga gcatgaggtg
74581 aaccagaget ttggaaagat taccaactgg gaggecagec eteteteaga geacttgete
74641 ttagataatc tatgtgcaaa cacacatggc tcactgacct gggactgaag gggctacgag
74701 ggcatagetg gggttaaagg ggactetaaa aaaaaaceta gagttgatte agttatgaca
74761 actgtcattc tccggtgtgt attaggaaat ggcaaattgg acggcttagt acttcacctg
74821 tgattgcaag ttttaatctc tgataaaaac ttgataaaca tgacagggag ccaaaatgaa
74881 gagtgggagt gggggatgga cagtgtgtgg ggtggttatg tgcctgggtg aaaggactgt
74941 gaaacaagga gcagggactc acagatcttg taagcaagtc atgattcagg aaagccagta
75001 cgcctgagcc ctgattctat gcaaagtcct gttacaagca aatgagttta acaaaacgac
75061 ggaggettac atactactga tgcccagget caaaagtaga actaacttac qtaaaaagga
75121 aaacatccca ggaccactgc tgtgtcctca ccatagcaaa agagatacca cagccgaagc
75181 gcaccccatc cccaacacac acacatgcac atggcaaaga atgaggccca ctggttttgg
75241 cagtttccaa agtgcaagag acagaaccgt ggttatgaca cttaagaata aggtccaacc
75301 aagetgtttt tgaatetgaa aggtgaaaac aagettgtac eggteagtet tatgacaact
75361 tggcacaacc tatctgacag aaaaaaacct caactgagag gatggctcag tatgatcagg
75421 ctgtaaggca ggcctgcagg gcatcttctt aactaatggt tggtggagga aatgcccagc
75481 teattgtggt gaggaggeet etgggetggt ggteetgggg tetetaagaa ageaggetga
75541 gcaagccact gggagcaagc cagtgcttct ccaaagttcc tgtctctgct ggagtttcta
75601 ccctggcttc cttaacggca gactgtgatc ctgatgtgga agtcaaatcc tttccttgcc
75661 aggtcatata ccaccacacc aacaggaagc gaatggacag agggctgtta ggatgtatgc
75721 ggtgctcaag gctctgagaa ccactgaggg acaacacgtt ggaagaccaa gactgatgca
75781 gagaagacaa gcacttgatg cctggtcccg tgagcgtttt caataagtat ttccaaaaca
75841 gtttcttact aggtatttca atgacaagtt tcccagatga agcagaggca catgatggac
75901 taagtacgtc actatcggtc ccaagcactt ttgaggtcag ggaccaaatg cagtttttaa
75961 tatttaggaa gaagaatagg atttcttaag aatctgctat aatgataaga aattcctgct
76021 tagttttttt ttttttcctc tcagatctgc tgcaatgatt cactgggagt cattactccc
76081 aaactttaag atgagaaatg tattcagttg ctttgctctt ggaacggtga atatgtttca
76141 ttgtgttgta agccactcaa gtcgatggaa ttttttgttg taagaggtca gtcattatct
76201 ttacagtgaa gcatatettt etacetetet egtetttgga tacaaactca cacetttget
76261 tttccccact tctaggttct ggagctgggg aactagtacg taaacacatg aagaagatga
 76321 gaagggatta gtcaataatc cgatatcata gtactctaag cctgcgttcg cctgttgaga
 76381 aagctggtgg ctacggaata aaggtggaaa gccagcaagc cactagaggc aaggggtgca
```

FIGURE 6EE

76441 ccggtcattg tcgtctcagt ccctggaagt ctgcactgag agagaggaga ccagccacaa 76501 gtggctacat cctgggcatt cagagaaacc atcctactgc tctggaggac accgattcaa 76561 ttgcgtagag cagagatgtt gacatttaag atggtaccaa gtctaggaaa tggctcagga 76621 gaacttaagg tgttggcagt gagaatgtta atacagtgtt aagcagcaac aacaagcatc 76681 tcattgctag ccctccagcc atactgtgcc tatgtaaata aagcaagctt ataaaaattc 76741 agggaacagg ggttggaggt tgttcctccg gtgcgtggat acctgaagca ttggtgcgaa 76801 tgtacaagat ttcacttttg gccccacgga tatggtcgtt ttccaccatg gtgagggtca 76861 cagcettgac atagacagca tactgggtcc agggettcag eccatgcagt aaaatgecag 76921 getegeete ettgttegga ggeaggteta catecaccat gttecagetg ttggageeac 76981 aggcatectg ecegteatat teegtaacgt ttttaaatgg tetgaaagae agteaacaea 77041 ggccagagaa cgttgaaggg ctctggcatc aaaactcccc agaaccttcc ccaggggctg 77101 aacgigicac actitetati ictatiggga actecaaata aaacteatea teaattagat 77161 ttctatacaa aaataaaatc aagcatctgg actcgggagc tcgacagcta tgaaccgcag 77221 aactgacaag cagcettaga gacagcaagt ccctcattca cagggactga aaatgctgcg 77281 tetaagacat geggatgete attgtettet taagtgagag ttaaaaacaa caacaacaac 77341 atcaacaaaa acccaactaa tgaaaaaaaa aaaaacaaaa aacaagcaga gctgtttaat 77401 gcaaacaata aactaataaa acacaacttt tggacaaaac taactttcct atccccctag 77461 aactetaaaa tgtaattega taatageeat ttttatttat ttttattttt acttttttgg 77521 tttttcgaga caaggtttct ctgtgaagcc ctggctgtcc tggaactcac tctgtagacc 77581 aggetgacet egaactgeet eccaagtget gggateaaag atgtgeacea ecaetgeetg 77641 gctcataata gctattttt ttaaacaatt tttttagtag atattttctt catttacatt 77701 tcaaatgcta tcctgaaagt ctcctatacc ctcccccgc cctgctcccc aacccaccca 77761 ctcccacttc ctagccctgg cattcccctg tactggggca tataatcttc acaagaccaa 77821 gggcctctcc tcccaacgat ggccgactag gccatccttt gctacatatg cagctagaaa 77881 cacgagetea gggggtattg gttagtteat attgetgtte etcetatagg gttgeagace 77941 cettcagete ettggataet ttetetaget eetceattgg gggeeetgtg ttecatecaa 78001 tagatgaatg tgagcattca cttctgtatt tgccaggcac tggcatagcc tcacaagaga 78061 cagctatate tgggteatgt cagcaaaate ttgctggtgt atgcaatagt gtctgcgttt 78121 ggtggctgag ataatagcta ttttcgatgc ttaactatct cataatattc caacactttg 78181 tttcctgatt gtctcagaga gtggcattgg tgataccacc agttagcatc gccagtgcac 78241 tggcagcact ttcaaaggga agggagggct ctgcacagat gcatggtagg cggggtgtct 78301 actttgacga gatgcaaggg ctgctagcta ctggcttctg aaattatgct gacatgactt 78361 gtgttcgatc acgatgggag aggggtggcc cccatttaca caaacactga gtgattttga 78421 getttetatt tteeetggge tataacagtt eccaggacee taggteaagt ggeagegaag 78481 ataccaggca ctgccaccag cacctttgct tctggaaaga tcagtgcctg ggaaaacgga 78541 tgaccacaca gactggggaa accacctggc cacaggaggc tgagtaggaa aatgggacag 78601 ctcaggaage tgtgatgtgg agtaagcagg atggtcctat caggaactgc tgacacctag .. 78661 gttcgtcct cactattctt taatgctaga gggctcatgg cccagagcaa agtcttggca 78721 aggccatgca tgcatcaagt gactggaaga caatgggtca gttcagggta gccttggtga 78781 gaacagagca ccccatgggg tattttgggg -gacagaggct aagacaatat ttaaccaagt

FIGURE 6FF

```
78841 ccacataatg gcttatgaca gtttggaggc attcagttct cttaaaattc atcccctttc
78901 cccttggggt gaacttactc aaacaccata taaacaatga aagggctgag gcgggacact
78961 ctcctgacta gctgctgtct caggttggga cagtttaata tgacaactag agaggtcaca
79021 tgaggatgag gtgacggtcg cctgacttga ttctttatag gtacaccaaa gactctctat
79081 tcagccaagt cacactgcca cctggccgtc cccaccctca agcttgacat cagagtgaga
79141 ggcccaaact cacgcctcct tgtagtaaac tgtgaagctg atgagatccc ggtagtccgg
79201 cggccggtac cggtgccacg ttatgatgat tcggttcttc caggtcgtgg tggaggtgaa
79261 acggagaaca tcactttcac ctggggcaca gaggcacatc catgagtgac agaaacccat
79321 ccgtctctgt gatgtcactc tgagagaaaa ccctgactgt gcttccaaag gcaaatctat
79381 ggctggcgca ctcatgacct gtcaggtcag gctggctgcc cctaagggag aagccctttg
79441 aaatgctccg atcacaggct tctgctatgt tcttgatggg gaacaggtca gggggctctg
79501 cagaaaggtg-agggtgctgg-etgtgtacac-acttaccacc tctgcctaac tactcttctc -
79561 aagatgcctc ctggatccgt agagtatcag ataaatctgg atactcaaaa gacaaggcta
79621 gccctcccc cacatgtatg cacacgtctg actagctgtt ggtcacacag ctcctgattc
79681 cccactaatg ctatataatg acggagggtc aaatagagct ttagtatttc tgtttgtttg
79741 tttttgtttc cttaaaacag ggttttagat gtagcccaag ctggcttcaa actcacaatc
79801 ctcctgcctc agcctgttaa gtggtgagat tataggagtg taccatcatg cctagctcca
79861 tacagtgcta gaggagagac tgacatccag gtctgggacc acatttggag aggggctggg
79921 ttaacaggtt gaactctagg ctatgagatc ttagggtgaa aactctcatc accaggatgg
79981 aattattact ttgtccaaca tgtgaaaagc attccgattc aaagacatgg gctcactttg
80041 ttctagaagg agcagggcag agaaaggagg ccaagtgtga ggacaaggac actggacgtc
80101 cacggaagta ttatagtgga gcatctaccc tgatccttct atggcacagg agagaaaggc
80161 agagetgace tggagtggac tggctetteg gtaaatattg tttgctcata ttgaaaaggt
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80281 agaaaaatat atcagtatga gtgtatcagg cacccgccca ctaatatgca gaggccaggc
80341 actggctgca gtggtttgac agtccatggt gaaacaaaga gcccgcccac ggatgccaaa
80401 gactgttatc tggactgtgg cagtcccagg ggtctgagat gctgtcactc acaggaagct
80461 cgctctccgt tgttcctggt gtttatgtcc cctttgctct ggcgtccctt ggttccggtc
80521 acttecteca tgeggtaaat tteggagaca caeagettgg gattgaaage aaagtacate
80581 tttccggacc tgacggtcag gttccggtgg ttccagtccc acagctgctg caagttctgg
80641 ttgtctagga catagaagga gtagttcctg gaagcacaga aatgcgcatt agcaacgcac
80701 tgagcccaca gcccctcag gcgacagaga gcctctctgc ggccagtgta gttccatacc
80761 aacaaggggt ttgcttgctt actggggctt tataacagca gacagtggcg gtagccactg
80821 gcaaaaagat gtgccaagga caatgttttg aaatcgactg gacactaatt aatttcatga
80881 cctctattac caacacaca agcttctccc accaaaggat gttccttgat tcattccctg
80941 ggaaaatgcc tttggttatt tctctcagag ccaggtatgg acaatgtgct tgaaatcagc
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81061 ggctgccatt atccctagga ataaatccta cccatgccca atcagcagtg catgatggga
81121 tgggagacag cctggctctc tgtacatttg cctctcgctg caagaagcct tcatttcagt
81181 ccctgagtac gtgggagagg acagacatcc agtgtctccc tgggctctca catcagggta
```

FIGURE 6GG

81241 gctagatgca gcgtgtaaca tggtggcttt ccacatttag tatgtacaca gcttgttctc 81301 agtatecect acceptagag ettetggtge agaggtecag agtgcaccag gaatetegat 81361 gtctagcagg taatgctgat aaacaccagt cctgggtcca cccagaaact accaggccgg 81421 ccacggcact gtttccaagg cctaacttcc actagagggg agatatgggc atggccaaag 81481 ggaagatagc tatcttaggg ggccaagggg agagcaagga ttctacttgg gtgtctgcat 81541 aagtttttt tttttttta aacagttatt tctaaatcca cccacagacc agacaaacat 81601 gtcccaaagt cctgttctgc cctaaaggct gtgtccacct aggcaccacc tgctgagagt 81661 ceteacecae attagaacta etgeetaggg ggtetgettt caacatgace tteacatact 81721 gagaaatgag ttacagctgc agggttgcca agcctctccc gacacttcct ggagaactca 81781 ttagggaget cagaggecag gacccaggac eggaagagee atgaatteee cacaggacaa 81841 gccacaggca gtttcctcgg tgctatgaag agcagcgttc atgtgcgtag gtgaagtctg 81901 aggtotogtt ggttttaaga ttoottatga gägcagtga-gatggoteat gcgtgeaaga 81961 gtacttacat cacaagtctg gtgatcagga ccccgagaag gaagaacagt tactgtgtaa 82021 ggctgtcctc tgacctctgc acatacatcc ctctcatagg taagagtcct cacatggagg 82081 agtcggagct caagtgtgag ctaagcagtt gaatggaagc cccaaccctc cttgagcact 82141 tetgegeagg etteagegea gggtetgeae acgeaeggge teaatgagee getageettt 82201 ggtaaggagt gttcccctac catgcttgtt tattggagta ggaaacaaag accetgatea 82261 aaggaatcca gatcgtagta cctaagagtg tatgtcctag ggaggtcctt ggatacctgt 82321 cagtcagaac tgccacctac gggacccacc aatgttcact cttattgata tgggggtggt 82381 caggataggc agacaactga aggataggtg taatggtgga aagattgggt cccattaggt 82441 gtcttgccta accatgggcc attcttaaac tgctgcctca acgctaacct caccggtctg 82501 gctgctccca agtcttgaga gtcccaggag acaaaaatct cctgttattg aagacacctc 82561 caggccggat acaagggcca actaatcagg tcaaactccc atctccatct aggccaaggc 82621 ctcttagtaa actaatttct caagcaggaa acagaattgt actgaaaata ccttccttct 82681 gagccacaca ttettetece cagggaggga gcatgaatta gaaaccagga atttgacaaa 82741 tgaatggcag gcacatagaa actcagggta tttgactaat cactttgaaa agcaagatta 82801 tcttttcaca gtaaacacaa actttctctc tttaaacaat gcagagaagg ctgggagcca 82861 gaataccaat atcaataaaa tccaggcatt gtggagccta cagaaggtaa agaaaaataa 82921 aaaccttcac caaaataata atcaacctgc tggggagggc ccgtccacac agtgcctgct 82981 teccaacee caceegage etgeeteete aacacettet geaatagtga gagttaagag 83041 atatececag gtggagattt gtetacacae etteaagata etaatgteet tgaatggtea 83101 ttgttttctc agggagatga ctagttaagg gaaccactca ataaatgcga cttcataaat 83161 cgtttctaag ctcactgcct ttttacatcc acagaatatt tttaaaaacc aaactgttca 83221 tttttttcc tttggctcct acacgctgta tgatctcccg gagttttatt gagtggtatt 83281 ttggctctta gttcgatcct tccttctttc ctaccttcct ttctgcaccc cccccacccc 83341 ctcaagacag ggtttctctg tgtagccctg gctgtcctgg aacttactct gtagaccagg 83401 ctggcctaga actcagaaat ccacctgcct ctgcctccca agtgctggga ctaaagaaat 83461 gtgccaccac tgcctggtag cttgtagctt tttcaacatt agaaaaaaa atcccctcta 83521 ttggatgggt ttcacctgcc aatgcataga cctactagga tggttagtca acaatttggg 83581 ggccctgtca catgataagc tcacagccaa cacttagcta tgatctgtgg ctaccatttc

FIGURE 6HH

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83641 taggcctccc ttttaagtga agactgcagg ggaccgagtg tagagtcttc catgtaggaa
83701 ctgataacca ggcccaagca ccttctccac tgcttatgaa gtggcacctg aatggtttac
83761 tcagcttctc tagggctgct ggttctcagc tgcccatgga gctatctttt ctggtctctt
83821 cgggccccga ggccaattga gaagaactgg atgctaaata taaaaggacg ttataagctt
83881 tgaatcacct cacaaaggca caggatgacc tgtgctactc tctgaactgt caaaagtccc
83941 ccagaacaaa gtcacagaaa ataggtaagt cctgcacctt gatacaggca gggctgagct
84001 caaggtetee ageetacaca ggacceetet tteaagetet taetggcate etggaageae
84061 agacaaccaa taactcatat ccatttttgc aaggagacac tactactgcc tgtgacagct
84121 gtctctagag ggcatcagaa gccagtacac tgaagctgtc accagtacag tcatttataa
84181 cactacttag cccatctgta gaatattggt tcacttcagg tccacagtta taccatctac
84241 aaaggeteag ttagtatgga aatatatace caggeaaaac taaaccaage accacataga
.84301 ttgacaaaat aggccgtttg ttcctgagtg ctttttaaaa acagctttge tgaggtacgt .....
84361 tttaccttct aaaattgttc ccactataaa tatacagetc catgggcttc aataaattta
84421 tacagatggc caatcatctt tcaatcatcc agattcagaa catttatatc aaactgaagc
84481 cececece attettete catecaagge atttecetg tetgtteace caggatgeta
84541 catgtaccat tggctagtat cttactgtgt gttttgcgct tatactgagg aacccctaga
84601 ttatatctaa cgcaccattt tgagaaaata ctatggaaaa tgttgctaag agcattcaca
84661 tgtgatattt gcatacacat gcttccatat ctctaggaac agcctagact tgctaggcaa
84721 agtaactaat tgtatgtatt ttaaaagtcc caagtatgtg ctaaaatgtg gttatgttag
84781 ggtctagttc cagagatgca gggcacatta caaaaccctg agtctgcaaa gggtagagat
84841 gcctaaacag actaagaatt ctaactttat actggccccc ttccagtatt tttgttctgt
84901 tcaagacaat aatctttggc agcacctaag agcttgaact tttcatttat ttgattgctc
84961 ccaaaccaaa gttgtccaaa gcagagcatt tttttttca gataatggaa atatttctc
85021 tettatteaa ggagaaceae atateeetat ceccagacaa aaettgattt teettettaa
85081 tecececat gacceccaca etttgetaga gatcaggtag caagcaccae acaetetagg
85141 traagtgete tateactaca ecacaccact acttetgaga aaaccettte etttetgtgt
85201 ctgtccttga gtacacagac gtgcaggctt ctggacacag gagagagaca ctgggcatcc
85261 tectgttact etetacecca etgteetgaa acaggetgte teaeggagte tggeteaggt
85321 caggcaggtc atctgactag caagttcttg ggatcagtct gtctcagctc accacctgga
85381 gctactcctg ggtgcagcta ggctcagtca cgccgaggat tcaaacacga ggcctcatga
85441 ttgccaagca agtacactta gctagggagt cateteteca acteetatga tettatetga
85501 agttgggatt ctacagctat gccacactac agagagagtg atggctgaga ccaaagggtc
85561 ctgctgctac ccaagtaccg ttctgtggct gtgcaccctg atgtctgctc tgctgggatt
85621 ctgcttcacc tgtcgtcggc ctggaaatca gtgtacagaa atgtggcctg atgagcatgc
85681 atgacccagg taagcaggcc cagaaagaaa acacaggaac tacacgccag gcaaaacact
85741 tgtgttccca cggggggcta ccgagaaggc caagatcaac tgcagtgctt tcctggatag
85801 ctaaggctga aggatacett catgggggtg gggggtgggg tgggggggaaa tatteetett
85861 tccatcaaga cagaagtett cagaateete etgageegea eggaageatt tatgeeattt
85921 tcagtagcca tacaaaaagc tcaagaaata gattccttca acactgagtt gaggcaagat
85981 tgcttaaaaa taaaataaaa tataaaataa aataaaaact cagaagtggc ctgggactat
```

FIGURE 6II

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86041 atacatttga aggatcacag ggatagcgaa gtcatttcta atctttgcca tgtgccaaac
86101 atacacagaa atactcagaa agttactcga gcttatgctg gcaactcccc caccccaagt
86161 tttctgtctg acttggggtg aggtgaacet ggtgaagttc cacagggetc ccctttccct
86221 gtaactgtga tgtatccaca cattctggga aacactgggg ggagggggag gaggctatca
86281 gtataaacga cagcaccctg aaattaaatg tcagataact ctgctaatac acccctcctc
86341 aaaatctcca gtgcgtccca aggcttacct aaatgataac ctctacatct gcatgcaaca
86401 gtgcctccta taatcctagt actgcctacc tcccccagga gctgaacaca agacaggccc
86461 aaatgtcatt ctgtgctctc tcctcttctg tccctgtgct ttctagtccc ccaaaccctt
86521 ccaggccage tttgctcaga agcctgtgtg gccttctcca ccagagtctt ccttttggta
86581 cccagagcac cttctgtcct ctcctctggg gctctctgaa gcctgtgctt tgcactacct
86641 gtgttcatct gcttattaca aatctttctc tcctttatta aataagtgag gaagaagtga
86701 accagetgag-ccetaatact atacaacgag agacaaaggt gagttgttgc tatgggtgge
86761 ccctcaaagc tttggatttc atcacagtta ccagagaaag ctactactaa agagtctcaa
86821 atgtcctggc cagagatatc cttgaagcaa gaggctctca acctgtgggt ttagattcct
86881 ttgaggtcaa atatcagaca tccttcatat catgcattta cattacaatt cataacagta
86941 gtaaaattac agatatgacg tagcaatgaa tagattatgg ttgggggtca ccactacatg
87001 aggaactgta ttaaagggtg gcagtactgg aaggctgaga aacactgttt tttaacacaa
87061 gtctccaggc ctcacctgcc ctccactccc ttctcaaatg ctaacagcag ggctggcgtc
87121 agetttecag ggaagettee ccaataccag aateettaac aataettgge tgatatttat
87181 agtagccaga agctggaaac aacctagatg tccctcaaca gaggaatgga tacagaaaat
87241 gtggtacatt tacacaatgg agtactactc agctattaaa aacaatgact tettgaaatt
87301 tgcaggcaaa tggatggatc tagaaaatat catcctgagt gaggtaactc aagtcacaaa
87361 agaacagata tggtatggac tcactgataa gtgggtacta ggcagaaagc atggaatacc
87421 cacaatacaa ctcatggacc acatgaagct caagaggaag accaaagagt ggatgcttca
87481 tcctacttag aagggagaac aatataatca agggaagtag agggtgggag ggatttggga
87541 agaagaaagg agggggaggg gaaaagaggg tgcagagtca ggtattgaag gagctagagg
87601 agatgtacag agggtcagga aattgaacag aggggatggg gaactggagg tagcaaccac
87661 aaagteccag atgegaggaa agcaagagee teccaggace ceatggagat gacattaget
87721 gaaataaccc acaaagggga aggagaacct gtcaagacca tatccagagg ttagactgcc
87781 ccccacccc gttgaaggat ggggcaaccc acccatcttc aaagttttaa ctcagaattg
87841 ctcctgtcta aaggaaatac agggacaaag agtggagcag agactgaagg aaagtccatc
87901 cagagactgt cctacctggg gatccatctc acacgcagac accaaaccca gacactattt
 87961 attgctgatg ccaagaagtg cttgctgaca ggagcctgat acagctccct cctgagaggc
 88021 tetgecagat cetgaccaat acagatgaag aggetggeag ceaaatatea gaetaageae
 88081 agggacccca atggagaagt tagaggaaga actgaaggag ctgaaggggc cttatctggc
88141 atcaatggga ggggaggccc ttggtcctgt aaaggcttga tgccctagtg tagaggaatg
88201 ctagggcagt gaggtgggac tgggtgggtg ggggagcacc cgcatagaag cagggtaagg
 88261 tgggatggga tagagggttt gcagagggga aaccaggaaa aaggataaca tttgaaatgt
 88321 aaacaaataa aatactcatt taaaaaaaaa aaagacttgg ctggtacttc atacctaagt
 88381 tttgaataat gaaaaaatag gctataaata ttcttggaaa taaaaaccag ccttcaattt
```

FIGURE 6JJ

88441 tcagcaacat ctaagtgtat gatactttta gttaaggcat aatgataaga taatcatacc 88501 atgtaataat cctgataaga aataatcaaa gcctcctttt gactttctat gcctatcgct 88561 tgctcagtgt ggaaaaaagg ggtgggggag cttatcctcc agtaactaac agatctgaca 88621 gctactaatc cgccaaggaa aacgtgcttc ccgatgtcag ggagtatagg gcacagatct 88681 actgggggga cataatgaaa cgagatggag ttacagttca ctttaaaatt taatacaagc 88741 aacaatgaat taagggtgac cacggcctca tgtacgggag gccccagaat gattgcgaca 88801 ctctgggcag ggtacctggc acatgcagaa ggattcgcaa ggagaaggag gtttttctga 88861 agettetetg etegeaatgg gaagatggae ggggtgagea getetgttte tggetgtatg 88921 taccagggga agacccaggc cagagttggt gtgagaaaaa ctggaggttg taaagaaacc 88981 tcatccagac ataccagect ggggacaage etteteegga tetteeegte actgtettte 89041 taagggccct gattgcttag ttaatacacg tataaaactt caaagcatta acacagagct 89101 acaccagage cytagcaaat gtctgaaggg gccagcaagg gcacacaggc cagagtctgg 89161 aaagaagctg tgtgcacatg cagtaagcac cagctttact ctctgctgag aaacccacgg 89221 ctgctttaaa acccagcttg caaagcattt ctgtgcagaa ggcacaaccc ctatcaatac 89281 tocaaatoot gaaagotgat caatacacag acgotgtaag ctaatcaatg tacaagotot 89341 gcaagctgaa atatetetgt aataaaatga actgteegta etttgcaatt etttetgett 89401 ctctgtttga aaaggagatg gcttgggtgt caggtgctca agtgcttgct gtacaagaga 89461 acccacgtaa catgtgcctg aaatctcagc acttagaaag tggacacagg gacatctctg 89521 aggettgtca gecagttagt ctacaaactg gtgageteca egtteattga gagacatact 89581 caaaagataa gatagagaaa aaagacaccc tgtgtctcct tgaacctcca gagggtgtgc 89641 acaaatatat acatgcatac aaatgcattc tetetetete teacacacac acacacac 89701 acacacacac acacacaca accccagage acagtagget gaggeaggtt aagtgtcaga 89761 tgaatcacaa tttccctggg agttaagcac cacaggcagg ctgctgtcac tcctgcagga 89821 aaggtteet gggaatact tggactgeta gaactcageg cectagetta gactegtgtg 89881 gtggtttgga tgagaaatgt cacccatggg gtcacacatt tgaacgaacg gccccaggag 89941 ttggtgctac ttggggaggc tgtggaacct ctgggaggtg ctgccttgct ggaggaagtg 90001 caccaggagt gggctttggg ggttcagggc cttacctcat ttcctgtctc atgtttgcag 90061 tttgagatgt gagetetaac ettttgtett geetgettat tgeeatgeet eteceaeegt 90121 tacggatget ecceattata ageteeteet teeetaagge attttggtea tggtgtetea 90181 tcacggcaac aaaaagtgta actactacga tatgcaaccc ttgatgactg caccttaaga 90241 atgaagacac ccatttgcca aattgttagt atcctgtgac aactccacag gacttagagc 90301 aggaaggtgg gtgaccacct aggcagcagg agcaggccca gggtttcacc ttcattctgc 90361 gtaacaaacc caaggatatt tgaaaagtac actaatcggg gctgggagct ggctcagccc 90421 ctaagggtaa gggcagctgc tgtcaggtgc ctacaacgag tggagttgaa cccccaggag 90481 ccacttgaca aaaggagaga ctgactccca caagttgtat tctgacacac atacacacac 90541 acacacaca acacacacac acacacaca acacacaca acactattaa gacgcagcac 90601 gccacagttc tgtgaaagga gaatggagtg tttacccttc-cagctgctcc tctcctaaga 90661 tgagacgaag gttcttcagg aaggacaagg agaccaaggc atgagaatgg cggatcttca 90721 cgtagccggt caccacctcg atgagcccca tgaagttctc caactccgag gcaatgttat 90781 ctagagaaag aggagtccat gtcaccgagt cttcctctgg tcaggtggcg cactatactc

FIGURE 6KK

90841 agattcacac acactggtgt ggatgcgaag gggaagcagg tcttgcgtgg gggaattgca 90901 gtgagaaggc tggcatagca ccaaccgtcc ctgtctccac tctccgcaag ccacaccggg 90961 acaaggcctc tgaggcggga aagcagactt ctaggaggct ggctgctgca gttgccaagc 91021 tgattaacag aacgtgaaat cagaaatgcc aggctgctaa ttagccccag ctgacaaatg 91081 gaggcaacat ctcttagata tgctcagtga caggcagtcc tggctccaca gtgccatggc 91141 aggactgggc aaacctgtcc cagcctggta agaatggtct ttgctggacc tggagttcca 91201 tatttaaaga ctccatttag ggctgcagga aaacactcca atatcacagc aatgatgcat 91261 gcaggtagtt gatctatctt tccccacct ggatcgagac agggtttcat gtatgctaga 91321 cttaagatga ggctgaactc ctgatcttcc tgcttcctct ccctgatccc tattcctggc 91441 etetetetaa ataatttetg catetetaag ttttetatee tgeteataat taettetgta 91501 accagaaagt tgccaggaaa agttgctaat gtaacaggac cgagagccag tgaatttctt 91561 ttatcgtgct tacccacctt tcacatagca agtaacataa actttggttc atgacaaaat 91621 tctaagacta taataaatta ggtgaatggg atttttatta tatctgattc ttgaaggttg 91681 atttggtgaa agtttctcct atggtttgat ataaagaaga ggacaaaagc cttatactaa 91741 gtctgagcct cacagagtcc cctcacttgc aaaatacata cagtgctagt tgtatgtaag 91801 ggctacaggg aattcaacct gaaaaaaaga gtggctgcgg ctaagcctgt gttttgttcc 91861 ccaagaattg aatctataac ccctgtgtgc aagacaagtg ctctggccgc cctgaactca 91921 ctctgtagac caggctagtc tcgaattcag agatctgcct gcctctgcct cagaagcact 91981 aggatgaaag gtgtcttcac tgtgtagacc aggctagcct cgagttcaga gatctgcctg 92041 cctctgcctc agaagcacta ggatgaaagg tgtcttcact gtgtagacca ggctagcctc 92101 gagttcagag atctgcctgc ctctgcctca gaagcactag gatgaaaggt gtcttcactg 92161 tgtagaccag gctagcctca agttcagaga tctgcctgcc tctgcctcag aagcactagg 92221 atgaaaggtg tcttcactgt ggagaccagg ctagcctcaa attcagagat ctgcctgcct 92281 ctgcctcaga agcactagga tgaaagttgt ctgtcaccac acccagtaag taattcttct 92341 tcatgggctg aatttcccaa tcacattgat ctcccatgac aggaagatat aaaaacagta 92401 aggtttatga attttaaaag gcatgtcttg ggatcaataa actcaaagaa aattaataga 92461 tctggtatga gcaaaactac aatttggtta ttaacataag ggtcagcgtt cttgtgtggg 92521 gaacagggcc ctccattgtg gaagggtaga gaatgggcaa taaaaactaa ggacttgggg 92581 gctcgagaga tggctcagca gttaagagca ctgactgctc ttccaaaggt cctgagttca 92641 aatcacagca actacatggt ggctcacaac tatccataat gagatctgat gccctattct 92701 ggggtgtctg aagacagcta cagtgcactt acatataata aatcaatcaa tcaatcaatc 92761 aatcaatctt aaagaaacaa acaaacaaac agacaaatgc ccaagcctca aaaactcact 92881 aaaagaaacc ctaaaccaaa aaaaaaaaaa aaaaaaacaa caaaaaaacc caccttgttt 92941 ctattacctc tacagactaa gaatataatt cacttattta acaaatactt aggggcaagc 93001 aatccactat aaataaagag gacactttgt ctctgaagta aagaaaaact ttctttccct 93061 aaagatttac cagtaaagat taaaataata gtcttctgcc tatagtattt tacctcatga 93121 aactactagt agctcaacct agaagttcta gtggcaggaa ctgaagggca tctatctagg 93181 ggactttctc tgtcagtcca agactagaga agataagatt acagggctct gctgccacca

FIGURE 6LL

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93241 tgggagatgt tgttcatgaa tacaattctg aagcaacatc ccaggagcgc tgtctacacc
93301 aagtgaagaa agggagtctg caggctcaga ccacagcttg aggtgtggat ggcacatctt
93361 tetggetetg agaggtaaaa caggagatea etetttaate ttteetttge teagteteet
93421 caacggaggc aagcaaccca aactctggcc ttacagaagt gtggactctg cagcagctag
93481 catgagecag ccatgggtet gagecateag aggtgtgtgt gtgtgtgtgt gagagagagt
93661 gagagagaga gagaacaggc ctttcctgcg taagatgtga cttaaagaaa gacgagggct
93721 gatectettt acaggagtat attetggget aatggeteaa acategaetg tetttetate
93781 tggattttat gtttccgaga aactcacagg ggaggcgtca cacaagaggc ttacttacat
93841 cccgtgctgc ttttctaagc ctgtattctg cttgtgacta aagggacaga gccaggaaga
93901 gcatcgacgc aagtaaacca agaagcggtc cagccactgg_tctggtgggg tggagtactt-
93961 actgcctctc cggatgttaa taagcagatt gcccttcagg atggtgcatc cttggagcat
94021 ttgagcagaa gtcaccgaat cgatggtttt cgttttcttc tcttcatcgc cgcagacttt
94081 ggggcagggg ccttcgcagg ggatacagta catgctggtg aagataaaga gtggaccaaa
94201 agaaaagtaa ggaggetttt tgtttgttat tacagcagca tttcatgaaa gaaccagget
94261 gaaacatcca aacaatcaca cagtataatc tcctacccag ggcaagccat ccaagctgca
94321 aacacacaga gggaacacag actgcagaag aggaaagcat gtcgcttgtt tttagacaga
94381 atacacttcc catgcaagaa gcatgtgggt atcataggct tgtggctggg gagccagctg
94441 gtctacctgg gagacacaga ctcacaggca ctctggggct ctgaataaat ggagctgctc
94501 actgatgaga ccctcgcctg cctgcatgcc agaggaggtt gggcaagctg gcagcgctgg
94561 ggaagggaca gccgcatctt tgtcactaac aggagtctaa ttcccaaagc ccagggagag
94621 attccaacag gtacctggcg cagtgcaggt ccattatttt cttgctaaag cacaagtgaa
94681 tttatatctt gacagtgctt tgcagaaact tgtaaattga tccaaatgtt gttttgctgc
94741 acatacaata aaagccagga accteegeag etetetaatg aggteettgt eegaatgeta
94801 ccetcagtge cacacacac etggagecag aageagtgge atgetteetg ettectgeec
94861 atcatttagg aaacggcaga gaagatgcta agcctggggc tataccttct gagaccttag
94921 cctgtataca gaataagggc cgagaagctg ggtcgatttc tgaatgagaa aaatgaccca
94981 atcttctgga atgggtggga cagtgttata ttcaaattac tgctcttaaa tgagtccgtg
95041 aaacctcacg aaaagaaaga aaatcagggt aaagcaagag ctgcctttác taaagtcttc
95101 catecettee caaaatacta tetatagtet gttttgttta aaaacettaa tagttetetg
95161 ttatcttcct atttcctatt aggagagtgg ggctgaggtt ttcacaggct cccatgggaa
95221 gtggacctag ctagccaaag tgggggacat ctggcttcct ataataccac atgcaacatg
95281 cttgtggtgt tggaacgaga atggccccat agactcatgc atttgaaggc tcagtcccta
95341 gctaacagaa ctgcttggga aggattagga ggcgtctggt gctgagctct cagttatttc
95401 cttcactcca ccatctggga tcctgccctt tgaaatcaca agccaaatta gacatacttc
95461 tgtatacgca gctaaggtca tgacatttta tcacagcact agagaagaaa ctaagacagc
95521 teteatttet ageetggaga ggggttteet tetgaaettt etttgtgete tgtttgtgtt
95581 tttctcattt aactacatga cgcataaaac ccagctctct ctaaaaacaa acaaacaaac
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FIGURE 6MM

```
95641 aaaaacatac ttggaataac tgcagcttca tacacagacc cgtgcagaca gtacagagca
95701 cccgtgtact ttccacccaa cgctcccaac tgctgctaca tccaacataa cgataacaca
95761 gtgacctggc acgcgtgtca ggttctgtgc atttctccat ctgtctacat agacctgtaa
95821 attccctact gcaatcgagt tcgaggacaa cttcaacaaa gtcctcctgt gtgttgcctg
95881 tttgtagetg ceetetgace tgccccagac ttcactatec ctaacteeeg gtaactgcca
95941 aggtgtcttc tactgccacc ttgggaaatg ttacagaaag gcagtcatat agcacatggc
96001 ttctgaggct gatgtgcttc ccaatgtaca acacccttga agttaaacct tcctttacct
96061 ctcctggtga tgttctgtgg ggaggcctgc tttcctactt attgtaccag atatctgagt
96121 tgtcctcact tcctggtatt acaaacaaag aggctacaga caagtacatg aaataaacgt
96181 tcagggtcaa catgactatg tttattcttt ccccattttt tttttatcca aataggaaaa
96241 cctggagcca cctcccgctt tgttaaaatg tctaggaatc atttagcaat tgaaaacatg.
96301 totataaggg tgtgttctga ttatagctta agtttcctaa aacccactct-tgtatagaca
96361 gagcacaaac agtattttca aaatactttc aagcaagtgc taaataggct tcaaaggcca
96421 gcagagggac agctattatt tcttgatagt attttaattt aaaatgggag agactgtgag
96481 aacgggcagg gagcagcagc ccagtgettt aagagcacac tggagggaag gagacccaac
96541 tcctatgaag acacagcatc ctcactgtgt gttacaggac agttgaatgc ctttcagtag
96601 ggagaggaaa taaacttgca ggtcaaatat gatatagtga gtttgatggc cagctctccc
96661 tcttttttt ttttaatttt tattaggtat tttcctcatt tacatttcca atgctatctc
96721 aaaagtcccc catacccacc ccccactcc cctattcacc cactcccct ttttggccct
96781 ggcgttcccc tgtactgggg catataaagt ttgcaagtcc aatgggcctc tctttccagt
96841 gatggccgac taggccatct tttgatacat atgcagctag agtcaagagc tccggggtac
96901 tggttagttc ataatgttgt tccacctata gggttgcaga ccccttaagc tccttgggta
96961 ttttctctag ctcctccatt gggggccctg tgatccatcc aacagctgac tctgagcatc
97021 cacttetgtg tttgctagge ceetggcata gteteacaag agaceagete teeetettae
97081 cagccagete teeettgetg eteccagece cagaaggaag geattgtetg gaetgtgggt
97141 aagcaacttc acactgccag acaaaggtct ttggctcaag atgtagaggg gtacatacac
97201 cccttttcta tgctaaaagt gattatttag atgtaaaggg cctctaaagg cttatctagt
97261 aacagcttag tcaacagctc aacaaggtag ggtttactag aaggcctgtc tgtccttggc
97321 acatgccaaa agcaatggac ccaagagcta aaaccaacct ccccctcct cttcttcatc
97381 ctcctcctcc tcctcttcct cttcttcata aactgatcac cctaagtatt ttgttacagt
97441 aaccgagagt tgactaacag agactgccaa cacatgaata aaaaaatggc agacttattt
97501 ttagtagact gtattataca attctgagtc attgtagtcc ctggcttacc aaatcattta
97561 aaaatatttg atcttttcct ttttactgtg ataatggtgc agaaattaaa caggtaggaa
97621 tttacttttc atcttagtat tatgaaagaa aatgtaatct ttggtttgat ccagcagtca
97681 gcttacagtt agagacatct ccaaatacta tagcagcaat ggaatttctt tttgaagatg
97741 tactgaacat cttttataga gagtgactgt agcaaaacta tacattttat atacttacag
97801 aattgttagc aatgctggag actggaccta ggtccttcta tgtgccagag attggatcta
97861 ggaccttcta caaggtgggg actggatcca gggcatctca caagtgtggg cagtattcag
97921 aacttectag ttgtatttte agaggeteag aaatgtgtat gtgtgtacag taceggagge
97981 agggaatgaa ttacaatgga accttccccc aaagtcctct gctctgttca ggggaggaaa
```

FIGURE 6NN

```
98041 caacaacete agacetetga etgteetgtg tttecagagt tataaaatee tgtetteacg
  98101 aacatcaccc atgacgagtt tgtggaagta cagcttgttc agtcagaaac agctctgctt
  98161 ccacagtgaa gcctcagagt ccaggaagga aaaccagagg ccacaaagat ggtggaaggc
  98221 ttagagaaag gaggttctgg cagaaaacat ggcagatcag actactagtt catgcccaga
  98281 gcccaggctt gcaatgagac atgggagacc tgtttccagg cctcatgaat gctggtgagg
  98341 gttgtcttca ctctctctca gactgagagg caaagctttc actggcctag agtagcaagc
  98401 tgggaaggag tatctgtagt taaagtctcc accgctcatg cttcagcttt gcaggtgcac
  98461 ggggagcaag gctcgggagc acctggccag caagctaatt cttacgctct agtgctagca
  98521 aggcaccete aaagtttaga aataaaaaag caagetgaaa cagacceace actecaagat
  98581 tegeattaaa acaageteag ecateaceet etgacagace catetgggtg aaceeetggg
  98641 aggtcctaca cttaggggct atgcagcaga gaaccctcct gggcctaggg acaagagccg
  98701 ctgacctctg ggtgctgttg-eggatgaagc ctgagggaca ctcetgcatg caetcatcgt
  98761 cgtggataac gaagccatcc gagtcactgc tctcagcgtt ggggatgttg gcgcagaaat
  98821 cgcgatccac acagcgccag ccctcgaacc tgtaggtgcc aggcgggcag gcaggcacac
  98881 acacgcettt gtagtagtag tgtctgcagg ccacgcaggt tgtgttgtcg tccggtgtgt
  98941 ggcagetgcc caggcactcc gggtggcagc actcgttgtt ctcggtgcag gctcgcttcc
  99001 cgcacacat tgggcacact gtgaggacag agggagagag ggtggtaagg atgatgggct
  99061 acacagecte cectgggtea tecgetgeca ceaceagegt ggegtacegg agactggeta
  99121 gaaaagcaca cctcctctga aatctgcgta gatcttaccg tctgtgaatt ccacttgggt
  99181 aaagacacaa cccaacccaa gtccattctc tcctttagac tcctggtttg ctatgggatg
  99241 agccattaac atttaacacc catggactct tcaaaatgca gtggccacac ccattaaaag
  99301 ggagcccatg gtactggtga acagagagaa atacagacaa tatgggcctc taggactata
  99361 caaggcactg tgctcctcag ctctccttct gtatgagaat tccattctaa gaccccagtg
  99421 gatgcctgaa ccacgcacag aacactggcc tgtgcacacc ccettctccc tcatgcatac
   99481 aaagtgatga agagaggagg cataacaagt acggtggttt gaaggagaaa tgtcctacac
   99541 aggttcatgg atgtgaacac caggccggtg gtggtggtct gtttgggaag gttacagagc
   99601 ctttagcagg gagctggagg aagtcctttg ctgggggtag agtttgtttg gggttttaca
   99661 gcctggccca cttctctatt tcctgtgtgt gggtggaatg cgatcacttt gtgtttcctg
   99721 cetgacaaga ctaaagccat teetteecce etceecegg ccaccacaag gactetgtee
   99781 cetetaggae tgtacaccaa gataaacete tatetetgge tecattttte tgtcaaggta
   99841 ttttatcaca gcaacaggaa agttccaaat aaaacaggga actagtcaaa acctctaggt
   99901 tactgcagca aatgttaacc ataccettta caaaagcact gcgtgactgt ggcctctctc
   99961 ttctcaaact ccagaaaaag aaatccaggc tacggaggga ctactctttg ccatgggcac
  100021 agaagtaatt atggtctcta aagaggaaca agctacaatc gaagtgccca gtgcttatag
  100081 aaggicttig gtaatgeeg catetgeaac gtetetteac aacacaacet teagateaca
  100141 agcaagctgc tggacggtac aggatggtag tacacagggt ttctgtaccc aggggccacc
- 100201 tgctataagc cttgttaagt taaaggccag-gtccagtaat-cacagatcta aaatcacacc
  100261 ctgaacaggt actctgctat gcacttctgt aaatatgtca tgatgaacac acgcctatga
  100381 taacagtaca tgtacccaat tgggggaagg gattgtttgg aaatactaca gaactacata
```

FIGURE 600

```
100441 aatatgtata ttttaactgt gatgtaccaa agagtcaaga ttccatgttt tattaaaaaa
100501 aaaaaaaact actctaaaac caaaactaag ccaaataagc cccagtaacc acaggttaac
100561 ataaagaaca cacaagttca tetgcaccca aaacagcege tttgtcaacc ettcatgacg
100621 tggtctttcc cgggttcttc ctgtgcacag gtgtatgact acacatacct gaatgttaaa
100681 ccttggacta cggagaaagc actggataga cttggagtgg ataccaccat acagcaatct
100741 cgctacgtct caccgttaca gctgtgcccc agcatcaaac gcgccctcca tgcccacaca
100801 ttactgttcc atgagtacgg ccatctttgt gggcacctct gcacgccact gggatcagtt
100861 ttcagaactg actgcacgga gtcagtatgt gctctggagc cttacaccag tctgtctaca
100921 cagctctaag tcacatccaa gaattcctgt gtcactgccc ttaaaaacag ttaaatcagc
100981 agcatgaccc agtaaggaga ccggagttct cgtgacactg ccaaatcgac ataatcttgc
101041 atttgactct aaagtcatcc ctccacagaa acatcggggc atttcccctc cctggttatc
101101..tcccctgta.ggagttttag-gtgttctgct gggtatgctc tttggctcca aggcctccta
101161 gcctccactg tggctagagc gtggctgctc tgtgtttgaa gttcgttcat cccatgggct
101221 ataaagcaaa agttttacta gagcttcctg gaacactcct ttaaaaaatac agtgtgtgtc
101281 teettttte ttgetggetg aaacatagaa atgatgcaca gatatteacg cagecatete
101341 agatggaaca tgaggcaaca tagtgagttc aacttggcct ctcaagatgg ctggtgtctc
101401 tagaccaging gitteteagee tottgggtcgt gateetettg aggggtgaca tatcagacac
101461 catgggtatc agatacgtac attatgattc ataatagtac caaagttata attatgaagt
101521 agcaacaaa taattttatg gttggggtca ccacaacata aggaactgta ttaaatagtc
101581 acagcatgaa gaaggctgaa accactgctc tagactaaca ctgcagctgc tgacctttga
101641 acttetteag gtgaagagaa accaactttt atetatgeaa etgaaceate cacacagaag
101701 acctatette agagecacae acaagtgaag aeggaaagee tteteagetg gtttatgace
101761 ttcatttatt ataactaget tcaggetgtt tttggacace cattctaget caggaacaag
101821 cagaagttaa ttatctctgg tcacaccaaa aaacaaacaa acaaacaaac aaaaaacata
101941 atatcagaat tcagacactg tctaccacag caattacctc aaagacagta aaatggagtt
102001 cactgattta acagcctacc atgtttttag cttcacacac taccactgat tetttttca
102061 ctcaaacaca tcaatatatg acacagttga agatgatagt ctgatgactt aattaaacat
102121 atgcactgca cgggttacat caaggtttgg ggtctaaatg agcactgaag ttatttgtgt
102181 taatttttt ttttttaaat ctgtcaatga cagaagtcaa cgatctgttg gcatttacgt
102241 acccaccag aatttactgg ataaacgctg cacctgtgtg ccaggcaact ggacatcctg
102361 aaagaccacg cacagggtgt tectagtact gtgggtteet ggaagggtet teagagacag
102421 tgagattggc actgaaaaag gaaggccgat ggggaggggc atcaggacca cccgtcacag
102481 aggtcctcag atgtaaatac aggctgagat gttgctggaa acaaaatgga ccagctcagg
102541 gaggtaccac aggcacaccg attgacggac agcaggaaat caccctgctt taggcaaggg
102601 ttaggttctc acactagaaa ggtcagcatg ctgtatagcg aaggcatgat aaccagagtg
102661 ggcagaaggg cagaagaaca gccagaggag aggaatctgc tactgattac actgtccatc
 102721 tatggctcac acagatacat aaagttcaat gtaactcgct aaaggctccc tggtgcagct
 102781 gtcccagcca tccgccaaca ccattgctct gtgattcgtt agctcgacgt tatcagcaga
```

FIGURE 6PP

```
102841 gattatcaat gaggactaga tgccaacttt ggagcccttt acttacttac ataggaaaga
102901 aaatgataca tcacaataga tgatgaagtc aaatagctac atagtagtca aagcccatac
102961 catataaaag cagggggaaa taaccttgta cactgtcttg aatcagttac cccccaaatg
103021 caaatgctac atctttccag gatgagaaag agaaatagaa atccttgaca aaggatttgc
103081 taaatttgag acatgttgag ccctgttcca ggcctgtgat gggaacttct tctcaactaa
· 103141 gaaccataaa gttaaaaaca ctgtctttac agatagaacg gttcttttaa ggcatatacc
103201 agatccatga gtcccttaac actcagtgat gccaactgtg aacaaatgcg catctgatat
103261 tctgtgggtg gaagaggaca aaaaaggggt atgcagagag ggagagagaa gatggaggaa
103321 ggccgacctg cttgctaggg gactgactct agagatctgt gtgtggctac agggaggaaa
103381 ggggtgtggc tctctctcca gcacagagga ttccaggagg aagcaggaga acgcagggct
103441 gggattagac agtectggag ccagetteag aageetgetg taaattttgt eteatetega
103501 tgtatataaa tattattagt gttcaggact attaagggat ttcttgaaaa-gccccgggca-
103561 gtgcgtctcg ccagcagatg gatggctgct ctccatgagt gccaaaactt aaaatttagt
 103621 gcagtaacca aatttccaat tacagcacca tggggggaaa ggaggggacc tcccccgcca
 103681 ctccagagga ggggcacaca ggcatggtta aagggcagtc caaccttaaa aagaggaaac
 103741 ggaagctgtg aactagggca cgaaggaaag caaattgatt ttgcccatga gaccgttcta
 103801 ttccttgcca ttaatcagcg aagacaataa aaacaaaacc ttattgaaac agtcagaaaa
 103861 gctacaacat gtcctgtgtc agccatcaga aggacaggtc cagggtcagc gtgcatacgg
 103921 aggccacacg ttttaaaact cctcttcatt tctttaagag aggacaaaca agcctcgcac
 103981 atcagettgg teettgeatt tagtaagtte tttetaattt eeetttagee egtgattget
 104041 tetgtcagtg aatectttca tgatcgaaag etccgagaag egagcaaget aaagetteeg
 104101 agtccaacgt gggaagaaga agtaacgaga ccgcagaaga gaaggatgga agcattagac
 104161 aaggcagtgg aaaacactgg tgggaacaca gaggccagtg agggaagggg gaggtaacag
 104221 gtgctctggg tgactgtcag agcccatggg gagtaaggtt ccgaacatcg tattcaactg
 104281 tagtecaaac tetagaacag agttaaaaag ceatttgeta teagteegta agtetetetg
 104341 gcaagaatct tcatattatt tgaaacacca cacctaggat ttccatgggc ttccccagtt
 104401 cgaaactaag ccaacaagac ctgtcttcag gctctagtgg cctacctcca aaggaacctt
 104461 teteatttea ttaacecaae caageaetet atggaggagt gtgtggataa geettgaaat
 104521 agactcgtgg ctaatcttgg gagcatcctg cccagtactt aaacatgcag aagcctcctc
 104581 cgtcctgccc ctcctcttct ttttctttcc tcctcctcct cctgtttctc ctgctcctgc
 104641 tectectect getectgete etectectec tectgetect cetectectg etectectec
 104701 teetgetget cetecteetg etgeteetee teeteeteet eeteeteaat ttggeeettt
 104761 ccaaggcaag aggacatgta atactcaggg ccgtcacatg tatttgttta taaagattta
 104821 tacattctac tttatgtgtg tgtgtatgta ccacttttac gtctggtacc cagaggttag
 104881 aagaggatgt cagatttctg ggaaactgga gttacagatg attgtgaaac attatgtttg
 104941 cgctgggaac ctaacctggg tcccctgtaa gagcaacacg tgtgaataac cactgagcca
 105001 cctcccggt ttcctgataa tgtacttgta agactttcca gacacaacca tggtaccagg
 105061 agcccaaggg cagagtatca ccaaggctgg ccatgccttc tgttttgtcc tcaggttaac
 105121 cagcaaggag gatgctcatg atgctccat gccttgctac ctttcaggaa aggcaaagat
 105181 aggccaggga actcaggact cctcatagtt tggatggaag ttccagtttt caaagaatga
```

FIGURE 6QQ

105241 gtatetetgt tggcaggaac tgtgcetgac tgaggaggag caggggacca atggcaagaa 105301 caaggagaaa aagcccagct gggggtctgt gctgtgtcca ccttacaagc atcacaatgc 105361 tttcagttta ttagtcttca atgtacccct ccactatctc tcttcacata cctttcccca 105421 ctccaatctc ctcatataaa ggtactacta tgacttcact gtacctctga aacaaaaatt 105481 acatgttgca atttgactat tgtcattatg gtgtggtggt aagactaact aaatctaacc 105541 aaaccaaatc taatctatgt tggaggtaag gcctttggga gagaattagg attgtatggt 105601 gtcactaggg tgggacatca ttgtggtagt agtgccttta tcttatatat agagagagac 105661 agagacagag acagacagag caagcaggca agctcagcaa gtcatgcctt ggccatgcca 105721 taatgcaata ggaatgccct ccttagagac tgacactaca tccttggact tctctgtctc 105781 cagaactatg aaaaagtatt ttctttataa actaaccagc atcaggtaag ataagtatac 105841 ctcataagga atagatggtg agtgttgctt cttggactca gtcagtcact gggttacatc 105901 ctagcaaaat ctgtggctca actcacaaag tcaaactaaa tagtgcttct cccccccgcc. 105961 cccccccc agggggaggg atcgagggtg ggagagtcag agacagagta agaatgagga 106021 gaaaggagaa tgctttctcc aaaaggaaga caaggaccta aaacatactt atggtctttg 106081 caacgtcaaa aggagaactc tactgcctca ctactgagca agcatccaga gtttaaaaca 106141 gtgtctaagc atgtctgcct ggaagactgt agccactgca tagtctgtca cacagcaaag 106201 gcaacttcac gtggcaaaca gtgtcttaaa agcccaggce gaaaaatcac attggtaaaa 106261 gtattetetg cetaatgeca aaaaccaaac caaaccacac cataccaaac caatcegaac 106321 caaacgaaag caatctcctt ttgtggcggg gcggtaggca gatccagagg agacgtcatt 106381 ttaagccaga atccaaagct atttcagttt ctgtttgaac agaaaggctg ttacagatgg 106441 agaacttcca cagagaaaag cggaccctga gcagaacact cctggagcac agcaagctgg 106501 acagagagag gacaggaccg cgtgcttttt tgacctgttg gcacgctagt catgagagct 106561 cctaactttt ccagcagctg atgctgtaag tcattttctc cttattgact ttcaaaggat 106621 tttcaactgc tctgggttag cttgcttcct aagaagagcc ctgaacagtg cacccgcact 106681 tgggcagttt cttgattctt ggggagtata taaagggcta taagtcacat attgttgctc 106741 ccctttggct ttgccctttg ctttccacac cttgaaagtt gcagggctgc tctgcaggca 106801 gcatggtcca gtcacagacg gccagagtca caggcaggtc cccatcttaa ttccaaatac 106861 atctgcaaaa cccctagaca gtcttccaag cagcccaagg gaagcccact gtttgcaggc 106921 ggtgccctc aatgcggaga cagcactcat ttggatctgg tttcccaggt gaccttccgg 106981 cagcattcac tcctcagggc tccatgaagg tctggcacat gcggggcaag gctgctctct 107041 cccacatgct tgcaacccta ttctaacagc acaggatcat ttgaatcagt gtggaatatg 107101 ctgagactga aagatgtggt ctgccacggc tagggtaact tgctcagact cagatctcaa 107161 aagtaaggac atgcccacac tetgcagget cattetgage etetaatcae tgagatetee 107221 caggicagee titecacaat agetgietga gietetetta tataaateea attiatacea 107281 caaaggcaaa atacaaggct gcttattaat acggagttaa ctttcagtgt tatttcccat 107341 atgcctgatg acactttagg tgtgttactt atatgcatta tttaatcctc ctgataatca 107401 caaagggtag gcatcettca ettagagatg gacaaactgg agacategga gagattaaag 107461 aactcatgca agaggatcag gctgctgtgc cgttgttggg tgtcacactc agagtcccca 107521 acagatgaca gcagcetete cacacatett eccategtgg tgtggaegge ttetgageet 107581 ctctgctgtc tgaaaggcat gctgcagggg agttgcttgc atgctagttt tcttttaag

FIGURE 6RR

107641 catgcaacca taaggaagaa ataaaccaaa agccctacta cccttttcta ctctcttgag 107701 gtatatccct aaatctagag gacaaaacaa agtaacatac acaccgaaga gccccgcctc 107761 gtgcatacaa gtgatactag agaaataata tgtatcaact cagtgtcctc tattgagttg 107821 tagccaatgg aagtctcatg gacatttttc tgccacaaat ttaaaagact agatttttt 107881 ttttttcat gagacagggt ttctctgtat agccttggtt gttttggaac tcgatccaca 107941 gaccaggetg gcettgaact tagggateca cetgeeteca ttttcagagt gttatgatta 108001 aagatgtgga ccaccetgce tggccgccag gctggatctt gttggtatct ctaagagcca 108061 ctgcaaagtt gcacactaac agagaagctt ctcttctgaa agatgcacag tcaacatggc 108121 ttacctgata ggaaatgact gtgacatcag accaaccaga ccaacaagac ccaaaagact 108181 acaggetect cagagteage teggaceaaa taagtegaet gaatgeagta ageatgetta 108241 ggttttcaaa tgccctgaga caatactctg agaggtgatc atagcatcct tccaggaacc 108301 ttgctaggtc acaactcatg cctcactcaa gagctgctcc ttcccaagct tgtaaaccca 108361 ctctaacagc acagaggcat tctctttagc aagccataca gttctgtaag atggaaactt 108421 tgtcgtggaa gaaaatctga gtcagggcca gttgagatgg ctcagtgggt agataaaaca 108481 gctatccttc tgatggcctg ttcgacccc accccctca ccctggaagt cacatggagg 108541 agggacagaa tcaattccta ccaagtgttt tctgactgcc acatacatgc tgtggtgtag 108601 gtaggagtct cctccccaa taatgtttct aagttgggga acagttcagt gcgtcctcct 108661 tttgggagag cacagtttga aggctcggag aaaataaccg agtagcatcg cacagtccag 108721 gacagaaggt aagccacaga gttcagctgc tgaagcatct gggaacattt cattaatgag 108781 caaaagaaac aatcgcctac tgacaatgcc tgtgggatca ctgaggcctc gggaaccaag 108841 cagtgctggg cagagtactg agaaaacagg aaaacaaaca ctgcaaaagg ggtaacaaag 108901 aagcctgcgg agggaagtta taaatagcaa cattataact agaaagctgc gtggaaagag 108961 tgaggaccga ggtgcagctg acccaaagag ggagagcagg aaatttcaat aaatgacaaa 109021 ggccggcaga acagagaggg ctctgcccac ggtgggctaa gagtttcctt tcttcttcct 109081 gcacattttg taatatcage tttacaaaca cacacacaca cacacacaca cacacactta 109141 aaaaagcaga aagtetggtg gttttcagtg tettegtaga gttgtgcaaa tactgccaca 109201 atcgacgtta gaatattttc atcatcccaa agcaaaaagc ccatacatag caaagcttcc 109261 cccagetetg gggaatgact aatettacte gtetecaett etccaetgaa tegeetgeea 109321 ggagcatttt acttagtgga atcaaacaaa gggtgttctc ctgtagccac tgtcttccat 109381 ttaaaacaat gettteaata tteaceettg geatggtgte tactagteet tetggetttg 109441 ggctgtactg attetcactg tgggaaagcg agcettteta ttaatgtgga gtgataacat 109501 cgtaggtatt gggagtagaa atgctagaaa cactgacaaa ctcggaaggg gtaaggatgt 109561 caaaggatgg tggatgctga ggtccaggca aggtgctgag aagggtctgt ttgcatccca 109621 gactetgtat ttttggetaa etetateeac taaettggge cattetttga tagacaggge 109681 tgtcacagtg ggcataatct gtagaggaat tgtcacctac agtgtggact gtgtctcccc 109741 tctgctcagc aagctacctg tgccacttat ggaaaaccaa gtgcacacac atgagcttga 109801 gctctgtaga aatgcctgac aaatggatgg ctgaagctgc aacactgaag ctctgctaag 109861 atggggagag agaaaaggaa gggcaggaga gagtcaatgg aaaagatggt gacgaagggt 109921 gcagctcaac cttagagtcc ttttaccagc actatattgt tctcacagac tgtcttaatt 109981 cccgtgtact tttaaatagt cgaaaacgcg attttcaacc tattttaaaa cccacataca

FIGURE 6SS

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110041 aatttgaaaa actgcaggca gattttaaca caggggagaa aacaaacaaa gagagctggc
110101 atgggggtca ggacagacag ggccctcaag ctgatggggc atggtcagca ggggagggca
 110161 gcttcatggc tgcttcaagg atggagaatc tctgtctcac aaaagtcaca cactttgtcc
110221 tcaagagttc tgaaaaaagg aaaagaagca agaagteect gcagagggee gacteeectg
 110281 cagccgttct cagcaggctt gagcacataa agatcacttg tgactgcctg tcacagatgc
 110341 tcaaatggac aggatgggga aaaaaaatac ccttcacaca cttaaaaatt actctaagtt
 110401 attttaaatc tggaactgtt tgtatattcc ttataagttt atgaaactca cacggtcgct
 110461 ccatgactaa ctgaagcgga attgagagag tagtctctat ttataacttc tctgcttgtg
 110521 cgtgcgtcca gccctatttc cattctctgg tactgtacgc agagttatgt gaagccgtgt
 110581 gggctctgaa atgctactta cttcctaaca aggcaggcct gtgttccata ggggcaaatc
 110641 agtgggagac ggggtgaggg gttgcaatga ccaagtgaag gccaggctca gaggggaggt
 110701 ctcaagcacc catcattgct caggcagatc ttttgctgtt ggttttgttt gtttgcttta
 110761 ttttatttat ttattttaaa gacagagttg ctttgtaaac cctggctgtc ctgggacttc
 110821 ctctgtagac caggctagcc tcaaattcac agagatccat ttgcctctct gcctaccgag
 110881 tgtttatacc acctccaccc ggctagactg cacctctcta aacgggtgtt tgagcctgtt
 110941 ttgggacaat cgcacacctg gtgatggctg agagatctgt tctgatggtg tgaattcatc
 111001 aatacacaca ttcccaggtc agtgccttaa atctgtgtgc ccgctcatgt cacetcttcc
 111061 acttgatttt agtggaattg tgtcaccaaa gggtgcaagg ctttaacagg tcatgcataa
 111121 gcctctctcc atacacaaat gtttatgtga agataactga aatgactgac cagagtcacc
 111181 catgggacaa ctagtactca gagcagagca catgaggcct aggattaagt tctgttacga
 111241 aaagcaagac ggttcatgga gagagtaata aatgtgaaag atacacgcgc acatagacta
 111301 cccatggaat tcggatggct acatgtacat ggacacgaat cccctattca cagctgctcc
 111361 catcaactgt aagaacagct gctctaaggc tgcctagtca tagtttggaa gaaaaaaatc
 111421 aaaaccaact cctggaatct tctctaaaac aatgctctgg tgactgtagt tgtctcgctt
 111481 catgetgete caagaggagg aactececat gaaaaggagg aaaaggeagt ceacagteca
 111541 cgcttccttt ttgggaaaga tcagaagggg taacaggcac ctcacacctc aatcctgtga
 111601 ctaattatga aggtggttta tttttactgc atagcctttt cttttccagt ttatatcacc
 111661 tettaatgte tecagattea tteetteta gaatettaaa etteattaca gecatetett
  111721 atgtccatgt atgaaataaa ttaccactaa aaacatccct gagaaacatg tctaaggcaa
  111781 ctcagtcact gtatgcacac agtgaagttt acaggaacta ggaggactgt gacatcatta
  111841 tagccccgac ctgaacagga tcactgatgt gactgaacct ccaggatgca cagctgcgtt
  111901 taaatcagtc gcagttcttg aagaagcacg cactttctaa acacagcacg gatatcaaca
  111961 gctggtcaag tgacettcag cctgctcctc tgaggcccct gcctctctgc tcaccacttc
  112021 cttcatcctg ctgctctgct cctgtaactt ggctggaaac atgacttagg tattcccagg
  112081 accatectae tacataettt taettaecaa gtageaatea ttaaaaaaaa aaaaaaaget
  112141 cagctagacc tttaaattat ctaggagggt agaaaagcat tgtccctgat aattgtacat
  112201 cctgaaaaat actatcacta gcataaatac atggaatatt cataatcagc ctatctcact
  112261 gttaaaaagt acctagaaaa gagaccatgc aactgttgag ataccatttc tagaatctct
  112321 ctcttttct gagtgtgcat gtgcgcacac acagacttct gttggctttc attgtacttt
  112381 gcttgaattt tgtgagcaga gggggtggaa aaaggtacca acttggctaa aacgcatcgc
```

FIGURE 6TT

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112441 aagtgttgat gcccatagt gccaatagga atccgagtat tctggaaatg atcacttctc
112501 agtttcaacc aggttttttc gttttgtttt taaaaatggt actgcccacc gttaaaaagt
112561 tcactgaagg cattcaaagt tcgagatgcc acgctctttt ttaaaaccat tttttaaaac
112621 gattaatagt tgagcactta ggtgggcagc ggtggcatgc acctacaatt gcagcacttg
112681 ggaggcagag gcaggtggat ctatgtgagc ttgaggccag cctagtctac agatcaagtt
112741 ccaggacaga ggtacataga gaaaaataaa caaacacaaa aataaaacca aaatcaaaac
112801 caccacaaca acaactacaa aattgggtcc agactgggag ccatcctagg cacagtgggt
112861 agaacgcacg ccagctgact gaacagttcg gatgaagatg ccaacagaga gaggcccctt
112921 ctgttttttc caattaatta ggaactgtat gtctgtaaat ttttatttgg tctttgaact
112981 attateteet gateteagat aatetggttt actetaaggt getgteeaaa teateaagtg
113041 ttccttgatt gctcagacct atccattatc acccttggat gtaagagact gaagcaatga
113101 gaagcateet ggacetetga agacgagggt gaacccaggg tateetttea gacactgtgt
113161 acagggcacc tgcatagtcc tgtgatgtca cctgacccca cggggctggg agcagggaag
113221 gtcatacaga gggagggaga tacaggtagc tttctgcttc cttcccgttt gaacctttag
113281 cccaggtete cetteateae etccagacat gttetggaat accetetagg etggtttet
113341 acggttcacg ggaattttca ttggaagctg aaggaattaa caggtagatt aactatctct
113401 ataaacctga accccagtaa gcagacagtg ccagcccgta aagcatagat gagtctggaa
113461 cttggaatgg tgttcaagaa tcactttatc cgtggtataa aaatggaagc attcagaaat
113521 gggaaagggc caaactgcac tccgcctcct acaacgggac ctgtgacccc acagaagttt
113581 ggcaatgtca aggacacgcg aagtttagtt gctacacaaa gggactggtg cctatacagc
113641 gatgcctaag atacaggacc atattttcca aatcaactta aatgtgcagg tgtgtgtgtg
113701 cacatgtagt gcacgtggaa gacaaaaggg caatgcagta tgctttccac tattgctctc
 113761 tgcctggtct tgtgaagcag gggctctcac tgaagcagga gcttactgac tggccaagct
 113821 ggtaaccagc aggeetttte tgtttectaa ggceacttag tttttacacg gatgeegggg
 113881 atetgaacte agetteteac acttgeagaa ceatetetee atteeteeaa ateaactttt
 113941 aagcagagaa gccttaaatg ctgcgaactc ccaaactatc agagtcttcc tcttctaaga
 114001 aagtateece aggtttteea aattetggae teagtetgaa agegagggte tgaaaaagee
 114061 agagtcatct cttccactcg ggggtgaggt ggaggtgggg gcaataagca ctgtagcaac
 114121 ttccttgaca ttcatgtcaa aggagctgct gcctttcttc agaccccaga gtttcctcat
 114181 ccagcaggag gaggcaggga ggtcagggtg cagaagccgt ggagcctgta tcctagtctg
 114241 cagcgtatgt caaggtgtgc tttgtcccga tttagagaca gagcgagcgt tgaagtgaaa
 114301 aagggttaag aggatggaac aaacagaaca tactttgcag gcaatgacag tgacccaggt
 114361 aaaggcagaa gctgtgctca actccctgta atgggagcca gacatgcaac ttctgttatg
 114421 caatgetttg tgaaaagggg aaggettttg gtggteteea eteteceaeg ggggeetete
 114481 teccaeggee taggaacgea ggaagagga ggaatggeea ceacaagtet gggetgeatt
 114541 cctctgttct gcttctccat ggggcctggg agcgagcacc tttgcaagag aaaactcccc
 114601 aagagctact ggattctgga gcaaaggcaa ctcaggaact atgaacccag aggacggaca -
 114661 tetteacttg geagatggag aaagtgaagt teaagcaate taagegagga aggttgtagt
 114721 gctcgctcac tcactggagg ggggttgggg ggagcttgtt caagcttcca aggagtgaac
 114781 acagggattg ggacaccaga aaagcagctt ttcttcatct ttgaaatcac aagccctttg
```

FIGURE 6UU

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114841 aacacacgaa ccgcacacct tccttaaaga aatactgggg attttgaaat caatttaagc
114901 acctctaatt tccaaccctg aaacgtttta ctacgtgcat tctctaactg cactcgtctc
114961 tcaccttgta aacaagcaag atcggctgga tgagtgtccc ctaattacgg tttccttggt
115021 gcccgtctat ccgcattggc agcacctgaa ctttctcctg cactgtatct tcctaaattg
 115081 acatteteag eccaeactgg cacgetggce tggtgccatt caacagcaca aatgacacat
 115141 cccaagectg atactteegt ceteetgeee tetecacaet gegtgteegt aateetgeee
 115201 tccacccact ccccaacct ttgaaatttc taaaccccag cagaggaagc cctgtagggc
 115261 tcttaataag ctcagtcatg ctcgaaatat ccgttttacc cacagggtat tgtaggcagc
115321 aattecgace agageacate teggeacgag atcatggeet ecaaageeca gegtteagaa
 115381 ctcctaagag caccgctctc atgcagtccc actggaacac ttgggaactt caaacagttt
 115441 gggggtggga aaaaaacatc ctctctgata cttccacctt ccacctacac tgtgggttag
 115501- gaaactcctt cctgttgctg tggccacgga gggtacatat cgcaactcte-ctggetetag
 115561 tgtttgtgaa acccacagga actctgccac cacctacaca gaaagtccca tgccagagac
 115621 aacgacgcat aaacatttta tgttaagtta gccacatgct aagaaaatat catcttgatc
 115681 aggtattttt ctagttctgt ctcacgttca agtctcaagg cccacgtgga ggggagcacg
 115741 gaagtacact ggttgcatat cttctgcccc actggaagat gcttgggatt tctgaagaaa
 115801 ccacctgtaa atcagtctat cccttaggta atcgagaaag agagtccatg aattgtgttt
 115861 cattgatgtg agtcctatag gtgcttcccc ttggacaagg ataggtacca agaacaccat
 115921 cctgggctgg ggagatggct cagtaggtaa agtgcctggt gttccacaaa catagggcct
 115981 gcgtttggtt tcctagcagc caaataaagc acaggacttg gcaacaggac cctgggatct
 116041 ccctggctag acgccctcgt tgaaatagca acctctgggt tcagggagat gttgtagtaa
 116101 agataatagt gataatcaag gtggagatgg ctagaggatg atggtcgaca cccaccgtca
 116161 actgtggcct tcacctgtgc acatgcacac acaggcagca agtgcacccc atatactaca
 116221 cacacaggca gaaagtgcac cccatatact acacatacag gcagaaagcg caccccatat
 116281 actacacaca taggcagcaa gtgcacccca tatactacac acacaggcag caagcgcacc
 116341 ccatatacta cacacagg cagcaagcac accccatata ctacacacat aggcagcaag
 116401 cgcacccaca tatacatata cacagttttt gaaaaaaaaa aaaaagctca aatcaattta
  116461 taaaacatta agttttaagt tggcccttaa ctcactaata ttatttgaga ggatcatcag
  116521 tgaaattaga aacagaaaga atttaattgg aacctgttga tgtgtttcag gttattcaat
  116581 aacaaaaaca atctgccagc ccggtaacat ggtcatttgc tttgaatggg attgcttcat
  116641 tctgtggatc cacattccct gaggtgggcc ctgaatggct aggctcatct tctgggaaga
  116701 gggacacaat ggcacggggt agcattcctc tgcacattaa tcatgccaaa tatcattaaa
  116761 aaacaaaaca aaacaaaaaa ccaaaaccta ccagcccgga agccatggtg gcagcagtta
  116821 aagcaacaac ttaagaacag acgaggccca tctgcatgcc gctgtggcca catttgaaaa
  116881 ggcccaagga atgtctgtct gtctgtcttc tctgcctaca gttttcaaaa ttggtttcgg
  116941 ggagagtgag gttcatgctc tgtgttagaa acatattacc gagcagctgt ctggttacag
  117001 aagaacacgg gcttgggaga agttcacagt ccagccctgt cagctgctgt aagtcaaagg
  117061 gactetgeet ceteagagtt ceaceggagg cagatgacag acaceaecee geactgttag
  117121 cccatgaaca cacgcagcaa ggcacacagc gacagcaagt gtctcctgca catcggcagt
  117181 gctctgtcaa tatcagctgc tgtctccacg taagtctctg gactggattc tcaccttggc
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FIGURE 6VV

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117241 tttgccaact atgtaacagt gcaactaact ggtgcacagg tatagaagag atgaggaggc
117301 tectaggace tteegecacg geacgettgg aaaaggaacg tgacgaagag ettetagtta
117361 gttcccttca tgtgctgaag agctgcagat ctggtttcat ggaaggatgg ttagatgaat
117421 aagaaagaaa aagagaacta aagaatgttt tcaattttaa aaattatgtg aaattgtgtg
117481 tgtgtgcgtg tgtgtgtgt tgtgtgtatg catgtgtgca caggccaagg tgtacacatg
117601 catggtatac cagtgaaagg cagagggtaa gtgtgggagt cactttctct agcctttacc
117661 tgctaagcct cttactggcc cgtaagggca ggaatctgaa gtacttaaac ctcacttctg
117721 atcaaataaa actttataa actttaaaag accgttttct taatttcagt actcttctca
117781 gaccettetg tectagagta acetetgtgt gatecacaat agacetggge teacceagaa
117841 ctccctgaag gttcaatggt gatggtggtt tggttttgtg cagttctagg aatgtacaga
11-7901 gacacagget gaccactgag-gtcatgtggg gattaacact teatcaggta caggagetgt
117961 agetcagggg cagtgtgett gectageatg ettgeageee tggtteeaac eeceaggaac
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118081 aggaaggaga cttctgtgtt tcgaaaaatc tgttttgaaa cacaaagaga gactgggact
118141 gtggctcagt tagtgtagtg cttatctcta tccgagaagt cctgggttca attcccagca
 118201 ccgtttaaat ggggcatggt aatagaggcc tctaatccca gtccctggag atagtggcag
 118261 ggggactcca agttcaaagt tactcctggc tatatagtga agaatgcaag gcagactaga
 118321 ctgggctaca tgagactctg ttttaaaaaag ggaggaagaa tccttccaat acataacttt
 118381 actcaacttt gcttcagctt acattataaa cgctggtgtt agcatagata cagaagctct
 118501 aatattaatt acgggattca gacagaggta gttagagaac tgtataatgg taacacccaa
 118561 aactgggttg agtaccccaa atactcaaaa gaaacagaca atgctaacct gggagattag
 118621 aaatgattet geaactagtt eeetgetgea tgtgeagetg gaggeeecea caagttggag
 118681 gcttggtggg agactgagaa agcatttgct attcgttttc taggtccaag gcatttcttc
 118741 caggatccat gggctggact agatggagca agtgcaggct taagaagcac aggtactgtc
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 118921 gaaaaggtca tctatagcca gtggccagag atagcctttt atgcttgctg cacgacacag
 118981 tcagggcagt attccaggaa tgcacagaca gcctgctcag cttctctcac ttcccctctc
 119041 atagcccaga tcgaggaaga tggattcacc catcctgtca acaaagactg ccagaatctc
 119101 ctgtagttgc aggtatacaa ttgtgagttg ctatttaggt tatggaaggg ctgtggcatg
 119161 ccaacagata atgtgtggct acatggaggt aggcatggga aggggcaaat acacacacac
 119221 acatatgcac acacacaaac ggaacacata catagacacg cacacacaca taaacacaaa
  119341 tgctcacata tacacacaca tgcatgtaca cacactcatg catacacaaa cacacataaa
  119401 cacacacata tataccctac ttctgtacat gtgtagtcct gactcaggac cttgggacct
  119461 gctgctcatt cagcatatgc cgctttctgt tctccacaga catcctgcag atgtcccagt
  119521 gacctgcctg ccgcctgcct tccctgtctt tgaggtggtg acaactcctg ccaccccaac
  119581 attttatgtc acagcttcct cttcagctga cttgaaagct ttattttgtt caaggtctac
```

FIGURE 6WW

```
119641 cgagcaacca agaaagaaga gctagtgttt cacgggtaca gggtggagtg ttctggggat
119701 aggtcagtca tcgtttccct tttagggaga cttggatcgg tgttaatgaa ctactcacag
119761 gaactggcca gaatcagagc ccttgaattt tatgcactgg tccagggagg tcctgagaga
119821 gtggatgcag agtgcactgc cttttttctg cctttgcttg gaatcccaga ggagccagat
119881 tccaggaagg aagtggggca gggaggcagc agggtataac gaacaaacag aaaaacaaaa
119941 caacaacaac aacaacaaca accacctca aacctggtct ggctcagcgg gtaagagcac
120001 tgactgcttt tctgaaagcc ccaagttcaa atcccagcaa ccacatggtg gcttacaacc
120061 acccataatg agatecgatg ceetettetg gtgettetga agteagetae agtgtaetea
120121 gtataataat aaataagtct ctgggccaga gcaagcagag ttcctaaaat tcaattccca
120181 acaaccacat gaaggttcac aaccatcagt aaatccatcc atccatccat ccatccatcc
120301 aggcatggcc-ceagaaacaa tgtgtgccta-ttgctattag taacaaggta ccttcttcca
120361 tttgggctgt gtgcggcttc atggtagttt accetgtgct gcctgtgttc atttccacag
120421 ggaccccagg atggcaggaa gacctgcagc cttctcacct tcagaaccag agccaagaac
120481 acagagcaaa tgtcatgaat ggtcagagtc acacagcctg caggaggcaa agctggaatt
120541 ctaagtggct gagccttgag gtctcaaagt ttgtgaccaa tacactgtgg tggacctgcc
120601 ccggttccag agtcactgga aatattctca tagcaagcag gaagatctca gggacagcag
120661 acgtagttet aaatgggcat gtettgetag aaggcacage tgatgtgeet tttecagtaa
 120721 gcattacaag aagcccattt ccatggttga aaaatgcaaa ggattattct gagccatccc
 120781 gatgataaag aggacaacaa tttgccttta aaaaaaaaat ggaagctggg cacagtagca
 120841 ctcttctgta gtctcagaac ttaagatggc tgaggaagag gaggacttgg gaagaggagt
 120901 tcaaaggctg gcaggggaaa acacatcaag accttgtttc agatccacaa cgtaagcaaa
 120961 ccagaaggtg gtggcaaacc tggcggcgac gcttaggaca tctaaatact caattatttc
 121021 tacttcaaac agtgtaattc gtacaaactg gtagagcaca gaagcagaag aacattaaac
 121081 acaggattta ataatggata tgtgcacaca catatacact gttgaagagc ttgtcgtctg
 121141 aaagtttcta tgaattaaat atttgttcat taactactcg agttcacttg caaggcatgc
 121201 caggegecaa gggagageac agaagtgeac aaggeettee acacaaagae caggaaagga
 121261 gatgtgcaca tagataatga gtaaggcaca gacttatgtc ataaagatgc gtatcaggaa
 121321 gccaagagca ctgccagcca agaccatggc gtggaaaggc atgtgtaaag caggtgctcc
 121381 cggcagggtc catgtatgca tgagaatctg ctggagtgat ggtgggggtg ggccccttag
 121441 atccatgcat ttcaagggaa aactatcaat tatcatcttt atttattat tttatgcatg
 121501 tgagtacact gtcactcttc agacacacta gaagggggca tcagattccc actacaaatg
 121561 gctgtgagcc accatgtggt tgctgggaat tgaactcagg acctctggaa gagcagtcag
 121621 tgcttttaac cactgagcca tctctccagc ctaattatca tctttactga taactaaaat
 121681 gccttaaaag tttaacttag taatactctg tttaaaaggt atataactaa acacagccaa
 121741 tctgtttaaa acaacacagt ttcctgagtt gactagaaga tgctagtttt tcattctgtt
 121801 teteetggta caagaagatt teaaactate tacaateet catttaaatt taaaaaccaa
 121861 ccaaccaacc aaccaaccaa cctccattgt gagaggtgcc atgccactgg tacctgcctc
 121981 tgcctaacag tgtggaaggc tgcacaggca gtggagggaa aaaaccccca aacctctgtc
```

FIGURE 6XX

122041 gtttgttaaa acaaacgagc attttcacat tcactcatac tccctgaccc catagatcct 122101 gtgaattcta aaaaggacca tgcttgatga gaatgttttt taaacattaa cgcctacaag 122161 gtggagagcc agaagaaggg agccaagagt ggatggcgac cctcttcctc tcatgcttag 122221 caatttctgg tttcactcct atgcttctga gcaccccaac aggaaggett cacagctcct 122281 gaaggtetga getagaceag ggtacacatg aatatgetga ttatgtggtg etcatgeaag 122341 gagaccccta aaagatgact tececaccta agteegaace gecatgacte tgagataatt 122401 tacccaaagt tacatttctg tttcccaaag tattaacaag agtgtttggc tcttttaaaa 122461 agaagettag tetttcaggg etttttttt tteeetttte tttttcatt tteaacaaat 122521 tgcttctatc gtctgagatc tccattacgg aactgtttgt attgagtttt agtgaaggaa 122581 gaaaaaaaaa aaaaaaagaa aacagagcgg ctgggaagat tcaagtgtgc tggagactta 122641 acattaggat cgggcacacc ccaggcttca gggttaagtt aaggagggtg cttgtgtcca 122701 gtgtgagagg tggggatggg gatagaggaa gcttcctcgg aagacttgac cactcccct 122761 cttttgtgaa gcctggaccc ctgtcacagc gagtaccaga gtacagcact cacccatgag 122821 cctcaattcc atgtgagcct attctttact ccacgttagt ctgcctcttt tgcaagcaca 122881 ctctgcaact tttcatttta aactgtgtgg tgtgctaacg agagtcagca gctctctgag 122941 tgacctaggc aagttettte ttecatgage tgeetecage aacagagaaa gggggcaata 123001 ctgttgcagg gtcacggcag ttgggaacac ttttcctata gttccagaat tactggtctc 123061 ctacccaaac ctcagatcat cattaagaca tgctaatgtg tagcgagaca ggttggaagg 123121 atcttttct atataaaata ctgctgactg gggcgtggaa cccctgtcct attgggtgct 123181 gtggccatgc aaaaagaggg tcttccaaaa atttaggatt aagagggcat ggtgggagag 123241 gaacaacaaa ctttggaagc cttctcaatg tactgtagaa ttaaaagcca accaaggcaa 123301 ggaaggtgcc ttccaaccta gaaatccagc caccetetgc aacgagccca ggcctgctgg 123361 agaccacgtg aggtggtagt gggtatgcct ggaacctaac ataccacttc tagtaccgcc 123421 cagctggcac ccaatcagga gcggcacagc attctctaag cccaggttgg cacctgcaat 123481 catcttaagc atacaatggc attgatttcc acttagggtg tagaaataac actcagaaat 123541 tttacctatc tctgctgttt tgctgccaaa tttcaaatac tctccaagaa acgcaaacac 123601 aacagaacac ggaggatgtg acacacaaat tctgcacaat ctcactgcca atacctcgat 123661 gttatactca gtgtattaaa tggaatcaga atcctgagtc ccactgtcaa acttcctcct 123721 cgtctagtcg gtatgtgtga ctgacagctg atgtcactga atgcttgatg tctgaaatgc 123781 ctaggattcc tttttctccc cccatccaaa tataacagct ccatttcata ctccctagaa 123841 tttcatttgt gactggttag cacactatca gtgagggaac acggggggctg caggaagctc 123901 accgtcctta cagatttctg ggagggagct caagagtaag taagtgtgta agccttcata 123961 gctctaccaa acacatgcat aaaacctgat taaacacaga ggaagaacat aaatattctc 124021 agtottotaa ggggcagatg aagtotgggt aagaaggact aaagaaaaag catagagtaa 124081 aattcgctcc cgctttttaa taactcttta agataaggag agttgtttaa tgttttcaaa 124141 ataggcagag agagagagag cgagctagag agagaaagta tgtggtatag tttatgtgtg 124261 tgtgtgtgtg tgtgtagcac tgtgacagag tgtgtgcttg gcatgtgaaa tcccctggtt 124321 tcaatcette ceetteagaa tgttteettt ggaacaaace aatacatetg gtgacgetga 124381 cctttagtgc ccctcctcca ctcaccctgt tttctacagc aaaagtatct acaaaaagga

FIGURE 6YY

```
124441 agccgtgcct caggaagtct tcaccaaagc ttgaagagca tggagagaag aagtaaggtt
124501 ccatcagatg ccttgtgttg aggtaagtcc tccctcccaa tcaacccaca atgaatattc
124561 tetgatgtea gecetetet etgageatee tgtetetgag acettggaag taagaettet
124621 gtgtctggga ccaaaactac tggggctatt ttggcagctg agccctctgc ctcctctgca
124681 gggaaaaaca gtaggaacat ttcaaataac attcatattt gagatatttt ctggctctgc
124741 gtatttttct acttcatagc acgtgtaatt gtcctccctg ataaaagtgg acctagcact
124801 gctattttaa aagttttgtg ttctacactt taaaaggata cacaaagtcc tagcaggaga
124861 acgtcaatta ccaagtacaa aaacaaaaca aaacaaaaat aggaaatcac catttggcca
124921 atgccacagc aatgggtgtt gaatgaggag gggaagaaat aatgaacagt gtgtttagag
124981 agtcccgaga tctgtctcaa agtacttctt aattagagat aaaaataaag atgttaagtg
125041 acgagaggac cttgcagaga cagcattaac caagtgtcac aattacctaa gcatggggca
125101 tcaggtgccc tggcaggctg acgtactgac tctteacage aggaaagage acaggaggct
125161 gtgtgtgggg ctgcaaggaa tgacctccca tgaagtacct ggatcgagct actgaagtgt
125221 gggaaaagtg tcccggaatc ggagaaatca aggaggacag gaatcagagc tgggtgggca
125281 ccgctcctgg atcaggaacc acaaatggca caagagaggt caaagggcac tgggaagaag
125341 gggcagatgg tggcagtaca gtgcaggtgc taccttcatg gttcggacag cttcatcggg
125401 gttttgtaag atgctaatta gaagatgtca gacaceteec acceccacgt gtgcaaaact
125461 gaagcagaaa tatttcatat aaaacaaagt gtttttttt taagttccta aggtaaataa
125521 aagcaactta gtgacatatg gaacacaatg tccccgacag tttgacaata aggcaacact
125581 cttccttcgg gaggagagaa atctctactt tgcgtaggga cacatcaagg atatgcttct
125641 ttggaaggtc ttcaggctgg cagagctggt caccaatggg gatggtgtgg gggcgtttac
125701 gttctcacaa ttccccatct atctcatgtt accctccagt gcaacggaag tggagggtac
125761 actgagtgtt catgaagaga aagccgttaa cgagatgctc aacgagaata taaccatctg
125821 tegeactigt eccgcatgte ceatgeeett tieetagget geaageacge aagtggtaca
125881 cagatacaca cccaggcaaa acatccatac aaactaaaca cacacacaca cacccttttt
125941 gggtcctttg gagtccttgt ttatgggagc agacattgtt ctgtcttctg tcacagatag
126001 catcetetga gettggaaag tttaacatga gattgatece actettteca agggggagag
126061 ggagactaat gtgtaagcag acagctccca gtatcacaag ccttagtttc ctcatctatc
126121 actatgtggt ggtagtgagg gcagtaaaaa gaccttgtca agctttgact agaacaacct
126181 gagattette attetgggag tageettaaa tgtaactata tteaetggea aagaagaaca
126241 aactaaggcc ccaggtgaat gtaagaaggc taccattttt acttcggtga tgctgagtgt
126301 taaggcgtgt atagcacaac agaggagtac tccaccgcaa agggatgcac tgtctctttg
126361 gagtcgaggt gcccctcca ggtaatgaga cagaaaggag tggatacagc tggtccaggt
 126421 tettggetgg etcegagage tatgetaagt cetetgaate aatggtatga cacaagtttg
 126481 ttetetgttg agetggtgte ttaetteate accagtgete atetetaaet ceegagetea
 126541 agaaatcett etgeaggatt ggagagatgg etcageggat aagageactg actgetetee
 126601 cacaggteet gagttgaaat ggetcacaaa ceateectaa tgagateega tgeectette
 126661 tggggtgtct gaagacaget acatgtactt acatataata aataaataca tetttgggtt
 126721 ggagcgaacg gggctgggga gagagacgaa aaagtgtctg aagatagcta tagtgtactt
 126781 atatagaaat aaataaatta aaaaaaaaga aaccettetg cacageette tgaatagetg
```

FIGURE 6ZZ

126841 gggtttcagg cttgagcccc ctttagagac aggcagcaga gacacaaagg cctgcccaac 126901 atgtgtagga ttagatagcc tgggtatggc tgaagggaac aggtactcag gttggcccag 126961 gccaggagcc agactctagt atattatgca aggttgcctc ctaaattata atgcacttca 127021 tttgcagaga gtccaacact agactcatgg tgtctggtag cccagagggt aacaggctgt 127081 gttcttcaca gggaacatct gaggacagag acggaccaag agggctcttg acggtggctg 127141 gtggtaagga ctaggagcgc ttacggcgag ctgcttggga gaagcctttt caggtggtta 127201 tetgagagaa ggcacaggaa gtcatgaaat taggacetga ggacttgtee aggataggeg 127261 cagtagtgag aactgcatcc ttgtgaagat gggtttgacc tctgctggag gctacaatgc 127321 agctaaatgt gtctttatct taatgactcc agaaacgcca tgctgtgaaa gaagcaggta 127381 ggtagaggga ggtcaggaga gcaaaccaac ctcacgtgaa gggtaactca cagacttgtc 127441 gttcactttc cagaacccaa ccctcaaaag aacatacttc tagggtgtag ctgggaacca 127501 ggaagcagce agetetgage tgctgcttgc ttgctctetc acacagtggt aacaageaat 127561 gctcatctct tttcaaagca ctccaagcaa ataaacacct gcagaggagc tgatggagac 127621 agacttetet tactggggtg agtetattaa acagaaaagg aggeataaaa atgataaace 127681 cagacegtca gaacacagtg agtgcaagaa actgtcagca gagagegaac tgcttccttc 127741 tcacgccgga gggcactgct ggattaagca taatacaagt tatgtatgct cgctgatgtt 127801 cctgagcggg taagaaataa ccagtgttca ctagagtaaa aagtgcagcg gttctgaatg 127861 catgctggaa agatctccag caagggacag tgcaggaaaa cgggagcaga agtctcagcc 127921 ctcggtctgt gtatcacctg gtcacgcttt ctcactgagg gatattggtc cccgggcatg 127981 agaggagagg ttcctgctac ctagtgactt tctcaagact gacttaccac taacctgtct 128041 cctatagtgt caggagettg agtetgaaac agtetteact aaatttttgg ctgtaactga 128101 aactggacta agtaattaaa aaggtttcaa tatttaagct cacatttaag ttgggaatgg 128161 agggatggtt tgatagtgaa gagcactggc tgctcttcca gaggacccag gctcaattcc 128221 tatcacacat ggaggettag aagcatette tteaggagaa gacetacagg ggaactaata 128281 tccttttcta gtgcacacat ttaaaactga ggcttagttt aaaccctgtt ttaccagggg 128341 caggggtgtc tgtgcacaag aaagacagac agagtttagt tttagttcta gacttctatt 128401 tgctcaccag gaaaataaca ttggtagact ttaccaaaat ctgcagcaaa aactaaatga 128461 taaatgtact ctcaaaacag ggctcaatat cccacaggtg atcagggtca acttttccag 128521 ggaccctggt gtcagtgggt tttatacttg gaatgagaac acagtaaagc tgggactgcc 128581 aatattcctg ctaggactct ttattttctt tatggcttcc cctagcttat ttagaagaca 128641 ggcttctgtc cctcagggac tggacttctc aagagcagaa cactgctgta ggaaacagtg 128701 tettecaaga gteaagggaa ggaggaatge caccactgag aggagatgge ttgettteet 128761 ccctcaagaa aagagtgagc aaggctccat ccacggcgtg ttccaacacc ttcccacata 128821 gctggaccca gatgtcatag gggacttgca gaaaggaagt ttcaacatca gctagccttg 128881 gcagatgctc ccaagtcgtt caaaaataaa actcgggcga tgacggtaaa gatgggatga 128941 cggcttaaga tggagcaaga ggctttcccc gtggcgggcc tcagcttagt gctatgcccg 129001 cttgccgtct tgttcaggaa caaaccgggg cccagatgag aaacgcgctc gcgttgacca 129061 tocagaaagg cagagtgtgt gottotgaag goagtgttot coagcottto tacottocat 129121 taaatggttg agtctgtcct tgtgtggatt gatgttattt ctaaagcaca caattcattt 129181 caagagggga gaggcaggat taagctggaa atagttttt ttctattgag aaaaaattaa

FIGURE 6AAA

[-]

129241 gtgtaagtgg aaacgttttc atgaaaatgt ttttatatct caacgtttcc tgcgagcact 129301 ctgatcccaa tatatcacag gactgagctg gatgagggag aatgaaggca aaatgaattt 129361 aaataaaatt gaaactgacc ggctaggctt tattctccaa atctcatgaa atagcaaagc 129421 tgagggggac agagccacaa ataaaccaaa agaaaaaaaa aaccaaacaa acaaaaaaa 129481 aaaaaaacaa gaagcaactc aacgctttca gctcaaatga gtttcaattt tatttcaaaa 129541 tgttttaaaa tctagtttat tttcatagcc acaaaagctt ttgaatacct atgaatcaaa 129601 agccatttgg cagaaccatg gagettgtcc tagttgcttt ctctcaaact cttccctggg 129661 cctgttaacc ccttgttagt cagtcacgca cagcaggtca ctctcagtac ccagttctta 129721 ggggcactct acagccttag tgtgtatgag caggcagagg ctctaggctg gacggcacat 129841 gaaaatgata tatacagact ttaactacta attactttag acaaagaaca aacagaaaac 129901 aaaaaacaaa-aacaaccccc tceccaaacc caaaccaaaa aaaccactaa aaaacaaaac 129961 aaaaaaaccc caatccacat cctttagaga ttattttgtt aatctgcatc ttgatctgtg 130021 ctgctcaggg gccacaggag gccacaggag gcctctgaaa cttgaaacag ttaagattaa 130081 gtaaaaagtg caacgaagag agctcaccac atcctaaatg tttctcaact actcaactcc 130141 cggctaccac acgcagggca gacacagggg atctgtcgag gcacaagact acagagtaac 130201 agtgcaggtc agacagaaga gcaggggtgt ggtctcagtc cagctctcac atagctcatg 130261 ctggcctcaa tttcgccatg tctctgaaga tggccttgaa ctgatcttcc ggctcccttt 130321 gggactgcca ggtgtgtgtt actctacaca ggttacgtaa ttgtcaggcc tttgtgtttg 130381 tgtgcattte cetaagcaac tteatgtaca aagetaagtt gggtatgcat teteteeca 130441 ggcctggccc cttactctct accgtaaaat gcttcttccc taacaacccg acttgagtgg 130501 ggtccctacg tacagagaaa ggagatattt acagaagaaa gggcaaatga ctgcttttac 130561 agggaaagag catcccaggt caacacacgt accagattgt agagagggca ggtgtctcca 130621 tccccgtgcc tctctatttc ctttccaaca ctcagccctg tgtgagcaga gagtaaggcc 130681 cctctttgat gctgcacccc cctattataa gcacaatgct tgtaaccaaa cagatggttg 130741 gatgtttggg aaatgactga atgaaacaaa agaagaatgg tattctgtta aacaacagcc 130801 aacatccctc tagagcctgg acacacgtct ttatagagcc tggatacaag tctttatatt 130861 ggatagcaac ctctttactt tcaaatgcaa tctcagagca acccagaaga ctgattcagg 130921 tagtatacca cageteagte tettecatge teaacaatgg etecttecaa atggeattag 130981 cgttgtctac atatctgtac agtcagaget aatgtctatc tgttcgtctt taaatggccc 131041 agagetttte actttccata tactatttca ectacette acetggatat tgtctataca 131101 ataaagagga ggaaaccaag gcttgggcga aactgacttg ccagatcaca tagagttata 131161 ggtatataaa tggaaaagct ctggtaaaga ttacagacta tgctgattct attagctggc 131221 tgtaggacag ctgaatggat ctctttcaag gaagggcatg atttgtaagc atcccacacg 131281 tcagtgctga gtaaggctcc taagtcctgc tggcttgctg ccagccagta gaccccttcc 131341 agggtgaggg aactgggcag agctcagcac aacccagctc acctaactgt ggctgtcaga 131401 atcattggat cctgcccatc atacatccac tctgtggcca tatcccgcag cttcacaagc 131461 ttcatcaggg tcgggcctgt gtctgcaaaa agaccagctt gagaagacca ggaggtgtat 131521 atcaagtace actegiteat tegitegite atteactagit cagaactica aaccaataac 131581 cccagaagta aagacaaaaa ctccctctgc cctctggtgg cttgaacttc cctcttggac

FIGURE 6BBB

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131641 ccaattccca caggttaggg tttccagaag ctttcaaaaa aaaatcactg atgaaacact
131701 agctctttag cttagcgtat tatacaaaag gctgatttcc gatttatcaa agggttacca
131761 aataggaagt ataaaaaccg tatgatcctt acagggaatg gtcaaagagc agtgatcaag
131821 tccctgattt acataattct cagccattct tttggcagac ctctacagcc actaacattt
131881 ccatctacgg atgataaaaa gataactctt ccccttcct gggtgcctgt caggtataaa
131941 cttgaagccg ggcacagtta atcctcacaa ctccccaagg aagaggtatt accatgtttg
132001 ctccagatta agaaagaagg gtcaggcctg aattccaggc atcagaattc tactgagagg
132061 gaagagagac agacagacag ctttcactct ggcctagagt gcagagaaaa ctactacttt
132121 ctgtgggaag aaaagtcagt caaccacagg aatcacagaa ggatccatca caagaggacg
132181 ccactgtccc ttaagcagag acaggactga gaagaacaaa ggtactactg ggacagaata
132241 tggagaggtc agcttgagga agtgctctag caaatggcat caaggaggcc atttccccaa
132301 ctggagagag acctcagate ctcaecacag gagccaggta gcactgtggt acgcacacat
132361 accatgtgtg tactgatgtg gtgggagaca caggcagagg tggcagggtg aaatcaggtc
132421 aagaagaact gagagccagg ccggggccac tgctctgccc tgcttatgaa agccagggga
132481 ttaagtcaag acttcactcg tgattcaaaa agttatctga agacatggcg ggaagtacag
132541 ctaggtetea ccaccetee eceteceee cagetetgea tgeteaactg aggacgtgee
132601 acttggcacg ctggcactct cctacaggaa aacatacttt ggctattcag acgtgacttc
132661 ctggcactcg gaagctgttg gcatggaaaa attaacaggc tgacttggcc agggaggaac
132721 ggttaacaca aatcaccagg aaaagatgag ccctgagcaa gcgggaggtt tgagggaagg
132781 gtcacggaaa aaagaagggg taagacacat ttgtcaggag tcccaggctg gtaccaagcc
132841 cactgcatga caaaggtcat tgagccctca cagccataca cagacatcac ggctttcctt
132901 tcaggcagtg gacaaggagg ctaacggagg tgaacttact tggcctggat gaggcagcta
132961 ataagggaca ggagctggta cacacatcat cacaacattc ttcattacgg tctctttctg
133021 ccttcaaccc cttgcccagt ttgtaacttc ataaggtggg gtaatgatgc caggaacttt
133081 gtagccctga ggcagaactc tgccccagct gtggccttcg taacctcccc ttactacaag
133141 cgacacagcc acctccactc aaatcctgac gacagctcag tatataacgg tagcgtgtta
133201 catactaact tggtcatttt ggggaaagct gcttgtgtgt gtaaaggggg gggggtggtt
133261 tggggcttgg gatcaaacaa atgagtaagt aggaaaaaag accaaccatc cactgagatc
133321 ctaaccagge tttcataact taagactgga gtcttccaca aactcacaca ggtagccata
133381 gaagetacte etggaaatee aateetggee agaacatget agggeeacce acatteetac
133441 ctgcagcaac cttcctttct ccctcagcat caaccctaag atcctccagg gctctgtagc
133501 tcagtaactt tgcagggtgt taagtctaga ggagcccaga ggtccgtggc ctcccatgtg
133561 ggggttacaa ttcctacaac cttaaatcct gtaaagcgtg cccacaaggt ccttcagctt
133621 ctcgccagaa cttccaaacc ttgcctttac acttaacaaa gcttcctact aaatatctac
133681 accaaatttc cgtacattag tttttctttc tgcttgtgaa aggggtggtg gtggtggtga
133741 aactagtcaa gatcggatat cctctgcaat accagcttct agaaaagagc gtttttgaat
133801 gggatgccac gtgctgtgtt ttgccatatt gcctgcgctt cctgcttgga gccagagtaa
 133861 cagaaacctt gggcactggg aactgttccg tgccacgcaa attccactcc gtatcttcca
 133921 ggcaaccetg tegcaaataa tteatgteea etaegeeeet accacacaga atacaactae
 133981 attgtgctgc tagaaatggg aaacctgatt cagatcagag aaggtagaaa aacatttagt
```

FIGURE 6CCC

```
134041 tcaacacaat actgccttta tgaaaagggg cgtgcgccgg gtggtggtgt aaatcccaaa
134101 cctgtaagtg gggatagatt tcaagacgaa ttttggaaga aaatgcagaa tcaaaatagc
134161 atccagcttg actcagacca gtaataataa taacaacaac aaaaacccag ccagtccttc
134221 tagagetacg cetgtttagg etgegeggtg etettaatgg ecagecagec tgtteteetg
134281 ggaaatggtg ctgctgctac agcgtgactt gctttgcgtg ctgcaataaa aggaaaacaa
134341 gcttgcacga cccaatagct tccttcagtt tgtgcctagc agcggggaga aaattaaaaa
134401 aaaaaaaaa aaaagcctga aaaggggtcc tgaggcaagg tgaatggagg acaggatcct
134461 agagaacage actgccctgc aggatttttg taaacagcag cctgtaatgg ccacggttag
134521 agaaagaaaa acagacatgg agggaagcgt gtttacaact gcagcaaggg cgggaggcgg
134581 agggagggat teceeggete tgegetegge cetetteact eeggtgggge eeeggggttg
134641 ggctgagctt cagctcccca ccccaatccg tgctttcttg gggggccccc catcttgttt
134701 atgggaaggt tactcctcct cggctctggt-gategegtce-ctaatactcc agctgcatcc
134761 ttgcgggatg ccagcttgac tgacaagtcc tgcagccaat cgctggttgg gcccttagga
134821 aaggtggaat ttcccaacaa actgattggc tgagagagag ggcgggccct ggtgattggc
134881 gtgttattcc gagtagaaag tagtaaacaa ccttggtcca ggggcggtgg ggagggcgcc
134941 cggtgccagc tccctctggc tggcagggcg gggtggggaa gcacccgaga caaaaggaat
135001 cctggctgcc acagcgggga gggcaggaag gggtggccc caaaagtcag cacctggagg
135061 cgtcgtttgg agccccccc cccccccc cgagccagaa ctgctgactt taagccacac
135121 atcgtttttt tgttttgtgc agaacctcaa aggttttgtt tccatcattt tcacttcttg
135181 tatggctgac gaagtctcca atggaatgat aaccgattta gtcgcttttg tccagaagcc
135241 ccttcctcac cgtcgaataa aaatttaaaa ttgtctttta cgaaagttgc tttaaatcac
135301 acactaaaat tgttgcacta tacaatacgc cattaatggc atgctggtgc accagacaca
135361 cagctacate ttttgatage aagttttagg agetetgage etattgggag cagetgggat
135421 ggagaacata cacaaaaaga aacaacacat gacggcgttg ggaccacttg ataagaaata
135481 ageggttaac ttgccttgcc catagtattt ctggcagtct cacttgaatc tcccattccc
135541 tcactccagc ttcaccatcc ttacaggacc ccaggcggag gaaaccatct gctcttagga
135601 tggggggctc tgctcacccc gcacataaac atgctcacaa gtcgctatcc tgagcaagcc
 135661 tcctcaatgt aaaaggggac caggaggcca gccaagccgg ctctctccac ttcaatgctt
 135721 gttgaatata cagagaccac gttgtcactt ttcacaatca agatatatcg gtatcacgat
 135781 atatcgataa cgggtacttt ataggagata acagtgcaaa ctggccacct ggcattctcc
 135841 tttgccattc tagtccctca cctctgctat ctcctatgga gcctgccaca agcaacccca
 135901 gtaaatgttc accccaagtc acctttgctg tataaaacat ggatttaggc tttccttggt
 135961 ccttgcagcc tggcatcaga ccccaaacca gtagctactt tcattgtagg caccetecct
 136021 ctggacactt tgttctgttc ccaggtccct gcccagacca cacacatcat tttactcaac
 136081 gttggttttt atgettteta gaetttacet etgeetgeee aggagaggee actgttetee
 136141 accepttctcc ctggcccagc taccccactt cttgcagaag actgaaattt gttttcttag
 136201 cactaagtct ctgatagggc tttaatgctg tatttagact ccactcctac gttaagaccc ....
 136261 tgaacttcct gaggcctgga atggtattat cttcagattt gggtcttcag tggagatggg
 136321 cttctactaa agtgcccgct gcaaacttgc caaatatttc taggattctt ccctagcatc
 136381 ctgagtatgc ctacccctga aaatctttcc ttacacacgt gcaattaatg tgttttctct
```

FIGURE 6DDD

```
136441 gctgggtcaa caactetgtt ttetetaett ggcaaattte caetetgeet aaaateaett
136501 cctctcttgg catacctttc acaacctccc accaactaca ctgtgtacca agagcagaga
136561 ggtctctttc cgttcttact tctctggcca gaattagcta caaaactaga actagcatgg
136621 tttgttggta aaggaagagc ggagaggcaa aatttcagaa gtggtatcac ctgtacatct
136681 gcataaccaa cccattgcca tctgtagggg tgaagcagcg ccatgctccg tttgtggctg
136741 tgatggtete cecetgettt etgtetgaag geetetgtet etgaggtgga ttettaetee
136801 cccctccatc tcaatcagag atctcctcct ggctcttatg ctatcaactc tgcacatccc
136861 cgattccttt ccaccatgac actgaactgt catctccttt tctatctgac cagtcactga
136921 cttgctcaca gtttagtctg tccgccatac agccatatcc agtgttctaa gaattgtggg
136981 gttccacage tggggctcag tctctgctta cgccctcatg tgacatctgt catcaaccct
137041 ccatctttct aagcctttaa tggtggaaaa gagtaaacct gtagataaag agtggtacca
137101 gatttcacct taagattaca gatacttgtt tgtgaataga atttgttctg gtacaggcaa
137161 atgcacggtt taaaatcaaa actaacaaaa tatacagtat attagctggg aacaaatagc
137221 caactaaagc aatgtaaagc tgggagtctg tattctggct caaagcccat cacggtgagg
137281 caaacatgat ggcctgagct tcaggatgct cattaccaca ctgcatcctc agtcaagaag
137341 cagagagaac tggttcccag gacaggggct ggtgctgcct aagtcttggt cttcccgtct
137401 ttaagttaac acggeeettg geaggeatge etgaagettg actttteggt gattacagae
137461 cctatcaaac accataaata ataacaccac acatatatta catatataaa aactataaca
137521 cagaacactc aattggcttt cagtaagtgg gctatttttt tttctttgtt gcttaatgta
137581 ttctagatct gtctatgttt acaaacggta tgtcttctct actaacaaat aggatttcaa
137641 attaaaaagc tgaacagcaa aggagacagt gaagagacaa tctgttagct tttcatctga
137701 caagggatta atatactgaa tatataaaga acaaaattta aatgtcaaaa gaacaaataa
137761 tcaaaccaat aaatgggcaa attaatcaaa tgggcagttt tcaaaagaag cacaaaagac
137821 caatacatac atgagaaatg ctcaacaccc ttagccacca gggaaatgca aatgtaaacc
137881 acaccgagat tcaaatctca ccccattcac aatggagcac attaagacaa ccatcaacaa
137941 acactggcaa ggatgcaggg ggaaatgtgc ctgtacacat tgttggtgga aataaaaatg
138001 aagtagttta gatactatgg aagcctatat ggccaaaaat gtgctactac ctcacttcgg
138061 gatgtacaga tgtgatgcta agtcagcaca cgacacatcc acgttactat ccacatcagc
138121 caagcaatgg gaccaggaaa agatgaagga aatgtgatgc acacgcacag ctgtgtcaga
138181 tgtcaaggat aaaaccaaac tatcggcggg aagttaagga gtggacaatc atctgaagtg
 138241 acgctggcca gaccaaagcc tatctcatct gtgtattttt ttttttaat gaaaataaaa
 138301 gggaggcttt gtacagaggg aggaaatgat acagaaggga aagaagggac aaacagaaga
 138361 taatgggtgg taatcaaagc acattttgta tatggatgaa agtattaaaa caagaaaaca
 138421 gccatcttat cttcacagac agcattctgc tctatagata accctgagtg gtccccaacc
 138481 ttgcctgtgt gtttaaatca ctgttacttc cccagaagcg gatttagttg gtttagaggc
 138541 tatcacgtga gccttgaaat gaaacagtag aaacaaagtc ccagatgatt ctaatgagga
 138601 ggcaggtttg agagataaca gtaaacctat ttattatccc tctactgata gaacttgtca __ ____
 138661 tttcagacaa caccatgtaa agtggcctaa tacacctgtc agttcaccgg tgtgctggtg
 138721 tgtctgtggg tgatcatcct gggagaatta ccatgtcaaa gggcacaggc actggtacat
```

FIGURE 6EEE

```
138841 acacacaca acacacaca acacaccatc ttccagcccc ctctgccaag tggggctgtt
138901 ttcctataga tctgtcatca gaatctgtga ctgaacattt tagattttca agcatggggg
138961 gctgggagga gctctgaata ctcataaaaa ggactttctg atgtgttcta ctacaacatt
139021 totggttott ttgtttgttt gttgttgttt acacctttat tatgaattca cttagagtot
139081 aacaaggatg gacccatgat ccaacatcag ttaagtaaag agcgtatttg ctccaatgat
139141 ataaaacgtc atcttattaa acaacgaacg gccacatgtt ctcacatcta cggctggata
139201 tcatattctg tecettcaca tactggcace ttgctageta tttaatcatt aattacttag
139261 gcaccatggg atgetttaat tatetggtaa tttegttggg ettgtttage aetattaeta
139321 ttatcaccat tattattgtt gctattattg acgactgtag agtcagtttg tataattaaa
139381 agaaaccaca tagtatttga agtatattaa ctttataaac acaggaagaa ctgacatctt
139441 gctaacattg gttagactcg cattaaaggt atggttctat catttatttg aatttatatt
139501-tggcagcatt ttgttcagta ctatttttct tattaatttt taagcatttt tctctgggaa
139561 aaacttttct tctatgatgt tgtatagcaa attatttgca cactgtagcg ttatcacatg
139621 actaagtetg gettatgtta tttccagaag atgettaatt ceatgeeett agaatetgag
139681 catgtatgca catgtgtgaa cccacagggc aactetgggt getgtteete cetecaceet
139741 atttcagaca ggttctcttg ctgggctgta gcacaccaat gaagcaaaca agtggctggc
139801 cacaageeee aggggtetgt ctacetetgt ttetacataa eggagattte aagettgtge
139861 cactgtgccc gtgattttta agatagattc ttcgacttga agtcagttcc ccacatttgt
139921 gtggcaatca tgccattgat ggagctattt gccaagttcc ctgtgctctt agaactctca
139981 ataaataaac gacaccaaag gtcttttccc ctcactagta tgaagtttat tattttttt
140041 tattggatat tttctttatt tacatttcaa atgttgtccc ctttcctgct ctcccaaaaa
140101 ccctctgtcc catccctcct cccctgctt ctatgagggt gttccccac ccactcactc
140161 ctgcctggtg gcctggcatt cccctagact ggggtattga gccttcacag gaccaaggtc
140221 ctctcctccc attgatgccc aaccaggtca tcctctgcta tgtgtgactt gagccatggg
140281 tecetecatg tattggtggt ttagteettg ggagetetgg ggggtetggt tgettgatgt
140341 cattgttett teaatggggt tgcaaaccc ttcagttett tcagtettt ttctaactce
140401 tocactgggg accetcattg gggaccacat gttcagtcca atggttggct gcgagcatcc
140461 acctetgtat ttgtcagget etggcagaaa gtaetttttg gcatecacaa tagtgtetgg
140521 gtttggtgat tgtatatggg atggatcccc aggtggggca gtctttggat ggcctttctt
140581 tcagtctctg ctccacactc tgtctccaca tttgtcccgg tgagtacttt gtaccactta
140641 ctaagaagga ccaaagcact catactttgg tetteettet tettgagett catgtggeet
140701 atgaattgta tettgggtat cetcaacttt tgggetaaaa taccaaggtt ctaatcaact
140761 caattcaaac caataaattt tgacttgaca tttacaacgt aagcaattca gatgtagggc
140821 atagcactag ctggtagagg caagactgga tatggggagc ttctaaccca agagtggaaa
140881 gtgttgggag aacaagactg agggcttggg gcagtgtggg tgaggtggaa agctaactgc
 140941 gtgccttagt gcatgcctta ggaaagtatc tcagctaggc tactatagca gctatgcatc
 141001 tatctatacc agagaaaccc cacagagctg gacatacaga tgagctcatt catgtctgat
 141061 gageteatte atacaegtga tagecatgat gttetgetga aegttttatg agataaaace
 141121 aagtttcctg tttcagaget gtgtgtttaa aggtatgtcc ctttatgaac attaaacaac
 141181 cagctgtatg tggtggtgtc aataatccca gaacaagagg gctcatggaa gaagggtctt
```

FIGURE 6FFF

```
141241 aacttcagac tagcttggaa taaatagtgc aaccatgtct caacagacaa acgtaactaa
141361 tggtctcatt ccagacctct taacctatga cctcttgggc tgaggtcata gtcggcatag
141421 ggaagtgcct ggctagtaac aacaacacag tcacacatat ctgtcctcaa ggagctcctc
141481 gagtaaacac ctttgctctg atgatgacaa gcatggccac agtccctgtg cttgcagaat
141541 cttggttaga aagctcccaa caccaccatc ttccactagt tagcctctgc tgttccccga
141601 actgaatccc taagtaccga atgctctcct gttccacaca gaaacctctg agaagcccag
141661 tttacagaat cagagactgg gccattcctc gaagcattgc taaagaactg gcaggagtca
141721 ctcaagttct caggagctat gggaagataa gattctcccc aatgcggttg cactgaaaga
141781 cagggcagta aagaacaatt atgcctaacc ccgatttctc tctgaatcca tttattactt
141841 ctcaatttag gagagtcact cttgtacctg caccctggcc actactcaga aaaacattag
141901 tgtatecaat gatecettta gtaactactg gagaagcagc tagetgaagc atgggggaat
141961 taaggaagac cttaggagtt caaaacccca aagtacaaac gcactgtcag cacacggaga
142021 gatctgtttt tttatgcatg ccttatgcaa actggcctaa gctaaaaaat gttataaagc
142081 attttgagga gtaaattttg atttcagggt taaaaagaaa tgtacagagt caaagaatct
142141 ttctgttggc tgataacaga gactccttgg aaaaattgac atttcttttc gagaagcaaa
142201 aggtggagta gaaatagtgt gagcagcata tgatgtcttg tgacaatgca gagaaggcag
142261 ttgggagctg ccactaatgt cgagttttca ttaggctcat atctccaact tttggttttg
142321 tgaggctgca actcaattgt gtagtaaaaa aaatttgtag tccattaggg tgcttttaat
142381 attcactata tctactatga aataggagct tagatgatga tgatgacaac aacagtaata
142441 gcagcagcta ctttgaaaca ctcacaggca ttgtgagttg gagccctgag cactaaccac
142501 tgtaatttgc tatcaggacc actgggtatg gcattcggaa aacggacata tgcaatcaat
142561 gcttgtgaca tgggagaaca aaaccttgtc aaccaactgc aaacagatgg ctcatggaca
142621 acaaaacctt agagaaaaat gcaggaatat cagcggggca gtggggagga aaagagaaca
142681 ctttccagac tgtatgcata gaagggcctc aaaggccgcc atgacagatg tgttcctgta
 142741 tcggggtcaa caaagaataa agcccatagc acaattctta ggaaaagttg aaatgcctgt
 142801 tttgtaaata aaacacaccg acttaaattt ctactactta attttataaa ttccgcttaa
 142861 atatgtgtct aaatacactt ttttcccctt gttttgagac atggtctctc tacgtagccc
 142921 tggctatcct agaactagtt atgtagacca ggctgacccc tgacgcgtgg ggaccctttt
 142981 gcttcttcat ctggagtgct gggattaaag acatacatca accagctggg cttaagtgtc
 143041 tagattttta acttetttat atttattett acceteagtg ttattgaaca ttgactgtge
 143101 agacttcaga gtttaccaag tttgaggggc tggccaaatc cttctggact tactgagaaa
 143161 ggaacagacc caggacaccg actggagcta cacggtgggc gccatggcgc caggccgaga
 143221 cacgtggate cttcggcttt gcttctgtgt ctcagctacc tcagaggttt gctgtggaat
 143281 cactagtatt ttaaacaatg caaacgcaat tacagttgaa gcacattctc taggagaagg
 143341 aaaaggagat tggcatgtag aagcttcatt aaacttttgg ccttttcaaa gctaaacgag
 143401 tcttaagaaa agccataaaa agttcccgtt gattgattta aaaacaggct ttttttttt
 143461 ttttttttt ttgcaattag cagatctaaa tctacgaaag ggagaaacac gtacggcact
 143521 tttagttaac ttcctgcttt ctctgtgtat ttcaaatcgt aacaattaag actctctata
 143581 gacacacgta cagatacaca aatacttagc aggacgtaaa cttctatttt ggcttcatga
```

FIGURE 6GGG

```
143641 aaatggtagt tatgtttcca cacacacaat gaattctggc agtttattta caagcagaca
143701 tcccatctgc accagggata ataccctcaa ctatgtgaca tgctacatcc ctcctgaaca
143761 cagtagggct aggaaagcac tgagaggata taaacatgtt cagggcttac aatattcctt
143821 cctaatgctt ctttccccaa cttactgtaa cgatttactg gaaagattgg actaaattac
143881 cgtcttccct ttatcgtccc aatttgtttg catttggtat cctctccttt ctcttggaat
143941 ctcccttgct tttccttttg tcagtaagtt aaattgcttc tcctcccaca tgcataaaag
144001 cattaattta taaaacacat agetgtatgt catateteat gtaattetat tttacatttt
144061 accactaget agacttatet aacatgaaca aatagatatt atttactgta gecagaatga
144121 gaattateta atgecaetta catagecaga aattgatttt tgattaatgt ttaagegaaa
144181 agcaaacaaa cccatctgct ctgaaaacaa acaaacaaag aggagcagag cactgagtcc
144241 tcggttcgca ggcattcctg caggcctagt gcctcagcgg ctgcagaatg gggcccttca
144301 ccccagggga aagcggacca ctgacaagaa caggactcca ggcccagact ggagtttctt
144421 ggactgggga ccacaaacaa caacaaatct ctaaaccctc tcaggatcag cagagaattt
144481 catcttgggc gcccactgga agtcaaggaa gttgttaatg gtcatgtttt ccttcttccc
144541 tettgtteac taggteagtt aaaagacaaa gaaaaagget gggeatggtg gtgcatgect
144601 ttagtcctag cacttagaag gcagaggcag aggttctctt ggagtttgag gccagcctgg
144661 totacagagt tagttttagg agagetagee tteaeggtea tetgeceaca cacacacaca
144721 cacacacaca cacacacaca cacacacaca aactgacaaa atgtaaatca agaaagaaac
144781 aaaaacaaag aaaaacagcc ctgtgccatt tattcttata atctctgcgg tttcctcagt
144841 atgaagaaca gagtgcagtt tatagttctt gtccactcca tttatattga atatataaat
144901 tattttctaa gatacttata tacataacca aatttgtttt taacaaattt aatgaaaaca
144961 ttcagcatga aactaaatag cagtaagact ctcagatggt gtcttaggtt aaaaacaaga
145021 ggagcactcc aaccttttct ttgacaaggt ctcttgtatc ccaggctaac ccgtatgtag
145081 ccgaagatga cttttaacag ctgacccagt cccttccacc gcttctgttg tactggatcc
145141 cagggeetee acgeaccea gagaageact etaacaacte actgecaget aagetacage
145201 ccggcctcct ttggagcact ttcaacagcc aaaactgaca caatacatac gcatcaacaa
145321 agtoccatac caagcotgat gatgoaaaca caacttgaag tottattggc gacgotcogg
145381 atactaccag ttgctaaagg aacagagtgg gactgcgact gcattctgaa acattttcta
145441 caaatactca teetgeacga agaagtaagg tgcaagtgce tttatgacte tatttecaet
145501 ctagacgete aggeteaagg cagagegett agateetget geaetteeat aaaaacaage
 145561 ctgatttatg ctgaaagact ttaatgacaa agttgtcctg atgtgcgtgc gtgcgtgtgt
 145741 aggacctaga gaacaagggc ctttgtcttg ctctgccgaa gcacagtgag catttcctga
 145801 gccctgattt agcctttaac tgatggttct ggtttgtgct tcaacagaaa taattgcatg
 145861 actgaccaaa aaaggaaagg ccaaacaagt cttaaataat gattgttggc gtaccaactg
 145921 caccaacctt ttctaattac aactctccat tttattattg tcaggcaaag tgagtacctt
 145981 aacttgaaag gctaagctga gggggaaaag cctttttgtc tctactttac aggtttgttt
```

FIGURE 6HHH

```
146041 ttataaacac tccctcagtc cccccaaagc aacaggaggc aggcacaatg accctactga
146101 ggagtacage ttttacetee atgggacaat agattgettt tetgttagee eetgggagta
146161 aaaccagett taatatggat geeettteet tateaaagae ageagggtaa taeggggagg
146221 gctgccaagc ttgggttgtg cggacttggc aggtatgagg cctacctcgc ttctacacca
146281 cgtcactcaa ggaacagagc agaagaaaca cgttctggaa ctttccagag aggccatcct
146341 tgttcatgta ttctagtcca gagttctact tctctctaca gagatggatg aaacaaaagc
146401 aaaacaacac agagaaaaac cccttctaag ggagctggag ggaggagata atctagagag
146461 aggatgccaa aagtggcttg tttccaagtg acaaaatgca cctttgctgg ggaagctagc
146521 aaggtagaag cccctgttca gaacttttca aggagcagat gaagacaaaa aaatgccacg
146581 caatggggga cggaatcctc tagatgtcga gaaaaagcag cggccatgcc cagggagcag
146641 gactagagag aggcaagcca actectgete atggcaagge ggettgeete tecagegeae
146701 tetgeagatg ttteegeacg ttgtttetat agtetgaaga caeteegetg geagtgtatt
146761 gttggatget ggcagaatet ctagtcaaga ctagcaacte caceteette ctgacateag
146821 caagggggaa cacaccagga gccaggagac aaggtgtagg tgcaggagac aaacaccgtg
146881 tgtggtccag agctgaactt gctgctggag actgtcctgt caggaaaagt aaaaaacaaa
146941 ccaacacaaa aatccaggag gtgcagaggt agaggcagag gcaggcgggt ccctgtgaat
147001 ttgaggccag tctgctttac acagtgagtt ccaggacagc aggggctgta tagagagacc
147061 ctgcctcaaa aaacaacaca aacaaacaaa aacaaaagaa gggggtgaag aagagaggga
147121 gaaggtgggg cgggggccag gggttgggta tggggaggga aacttaccct ggtggagaca
147181 gtgaaactgt tgtttgccac tgcctctctt aggtagggtc taactgtact cctgactaat
147241 cttcaacttg ctgtattaat caagttgggt tccaactact cttggaacta caggtgcaac
147301 ccaccacacc atcgaagtct tggcgcacag ctctaggggg cataggaaat ggctttcccc
147361 gtgccctgta gaaatggaac tgaaagctca tcatggcggt aagactgttt tttagctcac
 147421 actctcacac tgcaaatgac ctaatgacac agcagggcct ccggtaccat cctcactccc
 147481 acgctcccac tccatcctaa tgttagctca cttactcagt ctaccacagg cttaggtgac
 147541 atctgaagga atagcatact ataaaaacct gacttggcca ccacagcatg caagctctaa
 147601 ggcaggtaga acatactggg tttttgttgt tgttgtttgt ttttgtttct
 147661 tttccagttt ctcccctcaa agatcttcac atcatgagtt atgatactcg ttcattacat
 147721 cctcctagaa tggctccagt caagaagaga aggctcaatg acccaccca actgcaaaag
 147781 caaaattatc ttagaagaag aagaaaagga atggaccatg taattaaaat tacgaggggc
 147841 agtgacttac agaggtaaaa agttaatcac aaggactatc tcaaagccta gtgaaaaatg
 147901 gggttttcag aatcagacct gtcaaaggta accacgagat gcaataatgt ggtttggaag
 147961 tctgggtgac gggcagcagc aggaacaggt cagggaaggg gggagtaaat tgtttgcaaa
 148021 atgaaatgca gaatgaaaga ccatttgagc acacaggcat ctactctaaa acctgcaaat
 148081 acctcagect cagteetete acggaggact ggggagtgtg cactettett gttgetttag
 148141 aggaggtete tgctgcagaa gcagggtggg tgggtagagg ttcctactga aagctacttt
 148201 gggtatccag caccccgggg ttggtagcaa ggagtccctt_taatgaataa atgaagctgg
 148261 agetttecag atgttteatt aatggggeae ceagaaceaa tgetgetgea eeegtgeeee
 148321 ctacaactac taccggcatc tgggagcact tagctctaaa gtaggttaga gctggagtgt
 148381 aactgtatct atgtgaagac tgagtttgta tatgggaagc tcagcataca gcaaggccct
```

FIGURE 6111

```
148441 acgtgctggc tatcactgca atccaggcaa aggcttcctg gaaggctaac gaactataac
    148501 ttggctgata atgccgttcg ttcatggctt cgtgagcgct ccagtcccgg tggccttggc
    148561 gagagttgga gttgagtgga gactgcaggg acggaaactt ttccagcaag aaagagtccc
    148621 tettetecca eggteactaa ggaggataet tgtatttte caggateage tgagtegtea
    148681 caagaggaga gtggaggggc aggaggagac cgcctcaggc ggcgacaagg gagcccagca
    148741 cctccctga agttgcagcc agctgcttct tggctggaaa cttatttaag ttgtcctctg
    148801 teccaettet gaggetetae agggatgete tgggeaetgg gatecatgaa caaacaggga
    148861 tgagcggagc gaagggaaca ctctgctcag atgagtctgc ctctcaacgc cctttgccct
    148921 cactgtgctg gtggggagtg ggggtggggg aatctgatgg gcaaaagcaa ggggcggaga
     148981 tgtgactgtc acgcagaagg tgtgcccagc tcttagaaaa gtgaagaatt caagaaagca
     149041 aacacaagca teteteetge ttetacteec tagttateec aateccaatg aatettggaa
     149101 taattttagt tactgacact ccagatagca tcttcaacag tgaagccaga-ageagagcaa-
     149161 agggatetta gtagcatgtg ttaattttca tgcaggatgc aaaacaggca tttcaacttt
     149221 catctttctg gatgcagcta cagtggccac catccctgac caggactctg tcttcatctc
     149281 atcettetaa cagttatgea teaagagtgt atcagtaace atateaceat geaggatgtg
     149341 taacttgcct cttctcccc gtttcaggac agccagccac tggaaagtct gaggggcccg
     149401 gctaactgaa atctgcagat acgcttagga atccctccca accagccggg ttaacctcca
     149461 tatgtttcta atctctaact tgtacccctt gtgcagcctc aaagagatac atgtcacttc
     149521 ccgcactgat ctgacaaccc tctctctgag aggctcataa gcaccctttc ccaaggatgg
     149581 tcacttacag aaagctgcag gcaaagtaaa tccaagtctg ggcagcatat aataaatggc
     149641 tagtggcaga taatgaaaag gctgaaatca caaaatcaaa attctttcca ataaaggtga
     149701 atcccacacc tattcattaa cagtccccta ctgtctaaga tgtttgtgta agatcaatga
     149761 ataagccatg tcagaagact tgccgactat ggaaactatt tggataatgc tccaaggggc
     149881 ccaggccagg tgatgaagac atacccaggg tcattcttc accatgacaa agacatctcc
     149941 attgtttcaa agtcactttc agtctcctac aaagttatct ggagaatagt gtgccatgtg
     150001 aatgaatgtt caaacttaag caagggtacc acctteettt cagaaacaac cagagaaata
     150061 cgaaactgcc tctggggcat cgcaataagt agctggggct ggtaagctcc aagtcttacc
     150121 totgaagtca toagtaagca tgggacagtg aaggotcaga cataacatot catocaagta
     150181 atcaagagta acgccacca tcacagatgt actggtgcca ccctgggcac agtgacacac
     150241 cgagggcact gtataccett cetgaaggag ttaateacte aaatgcacaa acetaatgte
     150301 acgagagacc ccagtttaag agcaggttat ggggtcatag gatgagtgct cgttaaaagt
      150361 gacaacacca tgcaaaatca gcaagacaag cagacccatc acagcctcga gaagaccaca
      150421 cagataagac acatccacac gaccaaagac ttgggaatga aagaaagcac gttagtggga
      150481 aaactggtgg aatttaaata aagcctgcta agaatattgt gccaatgtta gtgtcttggt
150541 tgtgataact ggattatgat tatgtaagat gttaacatga ggagagctgg gtgacatttc
      150601 aggaactete tgtgeegttt teaacttttt etaaggtttt ttttttttt tttaaatgaa
      150661 gctgaggagg aagcagagag cctgggagge tggcttacte tttagtttgc tttgtcactt
      150721 tgtccctggt aagtagggtc attatactac agagctggct tgtgttacag ctcttccgat
      150781 tttgctccct ccatgtcttc ataacttttg gggaatcgga tgttactcag gtgagacaga
```

FIGURE 6JJJ

```
150841 agatgagtga agtcacaatg tcattggaga ttagagagag aaagagagag agacagacag
150901 atagacagag agagacagag aacaaacttc aaatttataa acacattatt cttccacaaa
150961 ggtccacatc acacactccc cccatttgtg caccaccctt gacaacacag ctgtgtggtt
151021 ctctagaaga tgtagttgga accaactttt agcgtcctaa ggaatgatgt catcctttgc
151081 tctataggag ctggttccag aggttttgtg gaacagcttt ctttccagaa agcagccagg
151141 tctgaagctg ctcagacttg ctctagactt cttctgtcta cagagtacgg caacatctcg
151201 tctacaggga ctgcgactgt tccggctctt tgatcatcct gttccctaaa cttaacttcc
151261 ttaagttgca aaacatttac tcttggttgt ttgggtcctt cctcggtata gaaattcata
151321 ttetetgttt etetetetet eteaacgggg etgtggaetg aacttacgtg aacttettgt
151381 gtttgcctgg ctttcactga ccctacacct tcagtccttt tcctttgtac ggagaaagaa
151441 atcattaaag agaaaattgt tccttaaaat catccctttc cccatcctcc aagccttctg
151501 tayaaagtgc agtaatgaaa aaaagatgtg tactcacact ttgcttgtat cagctatgga
151561 tgggttccta cctatcttat tgccaaactg aaaaactact tggaaaatgt tccaatgggc
151621 tcggtagaat aatagctcca agtcagaact ggggtgcatg gggtgtgtat agtctccaga
151681 gtggggaagg ctggctactt gtcgggtcct gccctatcag cctaccagtt actacgctgc
151741 tettecetgg cageteagte agtgtgegge gtggtetete etcetggeca tetaaaatgt
151801 ctgcagttat tgtaacacag gatgtgattt ttagatcaat ataaacctgg tgaacagatc
151861 aatcetgtee etcataaaca caggeaagta tetgggtate tagaeggtea tgaeetetaa
151921 cctctgaacc aaattctcaa cccaaaccat cattagcaga ttgagcccaa gtaaatgcat
151981 gtgtgcagaa gtagaggttg actccttctt aactgctagg tttataccag ctaccttatg
152041 gggtgcccca aataccatct ccaactaaaa ccctttcagt ttaaagggca aagggccctt
152101 aggtaaatgg ttcatttggt gaggcctcct ctctttgagc agtcacatga atccacaatg
152161 gagaaagaga ctctaactcc tgggatttct ggtaacctaa agagttccat gtctttccta
152221 cacaattggt ccccagacgg ctcaagtctt attgaaccga tatatcaatt ctggtggagt
152281 taaaatgctg agtaagagaa aataaagctg aagtaagcgt aaagacaaga gttgttttgt
152341 tttagctgga acatgattet ttgatgagaa aacteteata aacaggaaaa agcacattat
152401 tgaagctgaa gtgtttgatg gcttccattt tcctaagagc atttcgcctt agacacaggt
 152461 gataactgtc aagagcagcc agagtgattc ctctggatat ttctaccata aatatttctg
 152521 aggtcctact gtgtgccagg gattgtagtg atagtgggga tacaaagata ggagttgagg
 152581 ctatatacac tetttteaaa ggcaaagtet egagetetaa acgcaegaet caaacacaaa
 152641 accatgatat gcaaaggaaa caaatggttt gtttcttggg gacaggttga acagtaagta
 152701 tggtgacagg ttttaattag aagacttcag aagagcaggg ctgggccatg taaatcaaat
 152761 cctatatcag ggtctgtact aaactcagaa agactaactc aggcagttac tagagttatc
 152821 atgatectae acagaagtte atataaggae ectaactetg aaagcagaga tttgttgttt
 152881 tgtttttttt ggctgcctct agctagcaca tttatgaaaa acaggttaag ttactggctc
 152941 caaattactc cttaataaaa aaaacaaaca aacaaaacag cataagcttt taagattttc
 153001 ttttttaaaa cctagaaaac agtctccctg tcaagagcag gcatgattaa tgacttctgt
 153061 getgtaaget tgggtateeg eegtgttaet agtgtgtgat acteetaaca gettgtaatt
 153121 gccccgagga tacttttgga actgaaaggt gtggggcggg gcctaccttc ttaatatctc
 153181 cataattttt tggggggggg ttagactaca tttatcaatg ggacattgaa aatacagaaa
```

FIGURE 6KKK

```
153241 cattgtcaag tcatccacat gaaattatga atgcattatc atctgaagag tcatttccat
153301 aaaacggcag atgacaaata gtcagctctc agtatccatg ggggatgggt tcaagatccc
153361 tccctcagac atgaaaatct gagatgagca agtttcttat tatagatggt aaatctgcat
153421 atgatttaag tttttcttcc tgcatactag aaatcagagc tagatggttt gccatacttg
153481 agagegeaca aaegetgegt aaacagteaa eegtaeggea etgettagag eagtggttet
153541 caacetteet aacgetgett etcaaatget gggaatggaa ggtgtgtgge accatgetea
153601 gctagaatcc cattgtaagt atggcactgg ctggacctac atctgcagaa ctccagggta
153661 ctgaagggct gtactgcatc ctagcagctt cctaggtctt aggaagctac caacctgcaa
153721 actecttetg aggtgaaacc acaacaggge atccaccaaa ctcaaccact ggaacccaat
153781 gaaccagtca agttaacaga acactgagcc accttttgtg ctccatgaca gccctgacag
153841 acaacatagg caagetetat cacactgtat ggeteaacca gccatatttt ccatagaggg
153901 gaaatggagt ttgctgcttt gtttggeaga_tgcaaagagt aaagtagagg ggaaccaaat
153961 gagettagag caettgggaa ggtaggetga etteetagtg tgtteeactg taccaegeaa
154021 teccaetatt agetecceae tteetetggt caacaccaga tetgaacgaa acetacagga
154081 aggtttgaag gtacctggcc ttctaaattg tggcttacat aataacatca ggccctctgg
154141 tagaccetgt aggteaacaa ectaggaage caatteetat agtecagett aaataacaac
154201 cttgtgtttc aagggaaaat aggaaggtgt ggaaagcctc cattgacacc ccaactaact
154261 tgcctttgct tttctagaga caactatgca cttaagaaag gcaatcgaga tctgcagtta
154321 atttacagtc actgagatga ctcaacatac gttcatacta gtagtatctt cagcttctcc
154381 agttttttt ttttaaagta gaaacaaaat gtccggcctg acattttaaa aacctgacct
154441 atgaggaact tgaaatggtc agttttacaa attttccttc ctttcctctc tttcttctaa
154501 gtcattcact gaattatgta actgactcct agaacacact gcagacccca tatggaataa
154561 gacagcacaa ctcctgcatg catgatcact gctgggctgc aggaatgtgt taagacacat
154621 gtctgtccct cagtagtgta gacacaatcc ctgtcttgcc ctttagaagt ttataagatc
154681 cctgggcaca cagaacttgt gcatcaagtt aaagactaaa gggccagagt ggggttgaca
154741 agagcaattt cttaagagtc tgaagaaagg gagccagaaa catggagaag gcagtgaaga
154801 ctattttcag cagagagaag agagaatgtt attgagatga aaatgtggat ggcagattcc
154861 agtgcaaggg gtgcagatct catagaaggt gggtcaggga tgtggggttt gaaaatggct
154921 aacagcgage tecattatgt cacagcagag atgacgcaag gagetgtete ccagcaggtg
154981 agatgatgct gggtaggcag gaggtagaca caggaagtgg atttaggaac ccatagcaac
155041 catgagggag aatgagggtg gaacttaaat aagggagcat ttacgtagaa aagagttggc
155101 agaattaact ccatgggaaa cttagtggaa ctgaggacaa cgtgtcaact acaaagacca
155161 gaaagcaggg ctagttagat ggctgagtga ggaagggtgc ttgctctgac ttcaatcttc
155221 aggagtcaca ttccaggetc tatctccaca cgtgtgctat ggcacgtcca cacatagagc
155281 aaccaaataa ataaacataa cattgaaaga taccagaatg catgctgtct ttgaaaaccc
155341 tattcattgt cttaagtata agatgacagg gccatttccc aaaaccatac atcttgtgga
 155401 gacacaggtg gggcaaaacc aggtcaagtt cagtggacag caggtaccaa atggacttat
 155461 ggctatacct ggtaaggcaa gccatgaaga tgatgagttc tggctccctc gttcttcggg
 155521 aacctgaaat ctggagaagg gggaggggg aggaggagga ggaggagaag gggaagaggt
 155581 agtggtggtc actggtggac agggaagaac atctaggagg aaagaagcta cagaagttac
```

FIGURE 6LLL

155641 tgacggcagg agagggtcct tccaggccat ggaaacactg ggcctcaaag gacaggctgc 155701 tccagtctga tgctgcatca gaaacccaca gtcaatatat tgaaggtgga aatctgaaaa 155761 gcacttattt ttataattaa atacttttat gatagagaaa aaagcaaaca gagaaaaaaa 155821 agcaaaagca tcaggtttca cccaaacaca gcaatggtca gtttgggttc atctgagatg 155881 accaacaaat gccaatatta gagttacagt ttttcaaggc cataattgct acatttaaaa 155941 catcaagagt cacagactgt ccccaaacag tcagagccct catgacctgc ctgtcccagg 156001 atctgagage tacagtgtte tgettetatt tagageatta tgaatgetaa atagaaatgt 156061 tcaaaatatt ttacaaaatg aaaagtagac atcagtccac tgcaggtcta aggctgttct 156121 ccaactttaa aatacattag ttctttttt tcctttcccc tttttcttt ctggagacaa 156181 ggtctcaggt agcccaggct ggcctagtat tttatgtgtg actgagaatg accttgagct 156241 cccgattctc ctgcctccat ggaccaacga gtgcagttct ttccccttaa gagtcacata 156301 gttgaaccag gaaggatggc tcatgcctgc aatcccagca ctcaaagggg aaaggcagga 156361 gggctgtctt gagttcgaag ccagcaggga ctataaagtg agctccaaga taggctgcgt 156421 tgcagaatca caacacgtct caaacaaaca acgtagcaga catatctaac ccttaagcat 156481 gacaacgaca catttgtatg atacctgaat aataagaagg gggtgcatca ttataattat 156541 tattatttta cagttgtaaa catgggaaag tgctgagcag ttcaatgagc ttagggctac 156601 agtcactcaa ctgcatgcta gctcagatga ggataatgca gaaacgcctg ccgggaggaa 156661 ggaaggagca aacacttctg ccactccgtg aaatgtcact caaataacaa aacaaaccca 156721 ccgaccgacc tctcaggata aggaagtgta gcggagtggg aacacactct tgactggtgt 156781 gtgaggggcc ctgggattct gtacctagca tcacacacaa aaactgcaaa caaattcttt 156841 aagccatget tggtaaaaat gactcatttt gaacctagtg tgaattggag attattttc 156901 aattaatgaa gtttttctag ttggaaggac ttacaacaag ggccactatc ccaaaagccc 156961 ttagggactt gtctaaatga gtaaaaatat tgtgcaatta ggccaacaac tgaaactaag 157021 tgcgtctgag agcttaaaag tagtcgttct caagtactag ttcgaagagc atcaaatcat 157081 ataaaaggtt caaaggaatt taagtgaact gggttgactt ttcaaggcac tgaggtaatt 157141 acaaaataca ctaaatagca aatattaggc ataccctagg tttagacaaa caaaaccacc 157201 ctaaaaccgc cagatcatat agacacacac acacacaca acactcattt tetetetete 157261 tctaacacac acacacaca aacacattag ggtaaatatg tattagaaaa acctttgcct 157321 aagattteet ttaaacagtg ggtattatte atttttgttt ttttetttae agaacattaa 157381 tttctttgca aaatgtttgg ggtacagaga ttgcctgaca agagtggcca ccatgaagct 157441 tatgggcacg tgagaggaga ggtgaagaag cctcaatctt tctgagccca tttcatctcc 157501 cctattattc tccacgattt tcaaaagcca ctctactaca aacctgagaa acacaggagg 157561 tcagattcac aaatgaaatc tctttgtctc ccttctgtat gcacccagca tctgctccac 157621 ctagetgace gttacagggg cagggccagt gttaacatgt caagtgggca gagggetete 157681 tgcatctcct agtacatttc tggctacagg tgaactaaat gacaccaaag aactgctctc 157741 aaacgtgcat cccaaggtag agctacaaag gttcaatata accccagtat tttgagagat 157801 cttaaaacgc agtcaaagtt aactgtcatg tccatagcaa ggaggaactc actccttagg 157861 atacactggg ctggtcttcc agtgggcatt tcagagagcc ctgctttccc atatcagctc 157921 catcetgtat ceteacegtt gettecaaca gggaacegte cacatetgae tgeecaatea 157981 gatttcagca ggtggcatgg gggatccaga aagcatttct ctgcaccttt taactctgaa

FIGURE 6MMM

158041 ctgcatgcag aacccgtggt aagaaatgct tctctgatcg ctcctagcac ttttagtggc 158101 catgttaaat cagctaagta agaatgactc ttccatctgt gttaagtggc cttttaaagc 158161 taattcacac tatctccaaa taccctgaat taccaagtct gagggctgcc tagattcctg 158221 cttgtaagca atagaatgac actgaggact ctcggctctc ttctctctc catatcctct 158281 ctggttcact gagaaccaaa catcatctaa acagaacaaa aacatcagaa ctgaaggaat 158341 cgccaaagta tatacacgtg actcccgtct gaatgcattc agatccgacc agtgactcca 158401 agetttetge atgtttecca tgagetattt gecetgaate aacteeteac cacaactete 158461 gaaatgacat ggacctctgc tgttgcactt attattcctt ctctgatggg gagtggttat 158521 gactgaaaat tttcgcgcaa ccagcctcta aacagaaatg cagtttattc tgagtactca 158581 aattcaaatc tcagtaacac agcaattaca ttttaaaata aattctctcc atgttcttgc 158641 ttctaagaag agggtttagt gggatatgaa gagtctaatc ctaggcaacc atatggccag 158701 gecaattata aaceccatat atgttcacae atcaageagg geaaactget etgggaacaa 158761 cccttaatat tttattgcct gcccaggtgc ctgagcactt ctgagataca cctgtcacag 158821 gaaaatacag cactteette catetttace ceatagttge cagacaattg ggeagageta 158881 aagtgggtaa tgttgcagtc aacacttccc taaaacattt atacatgcca ctgataaaca 158941 atagaaattt aaaggagata caaatgtact ccccaaaccc taaatcttcc tcccacggag 159001 gcctaaaaac ttaaaaatct tcatctacct ggcacagaag aaggaataca aattccaagg 159061 ggagcctaga tttatggcct aaatatgtct tcctctagaa tatttaatac acttacgctt 159121 tagtcattcc atacattttg aaaatactct agcacgataa attacagtag ctgcatcttt 159181 catggttgtt cacataaata tcatttggct ttcaggaaac caattacgga gcggtaaatc 159241 atttttacat tgcttttcaa aatctttaat ttaacttgca acacggacag ggcacacaca 159301 ggctcccagg aagaacgcag ctcacacatt gtatcattcc ctcttgtccg agtttagcaa 159361 caacccctga gtaagccaca acaatatttt catgttctaa aatatttggg ttatatctat 159421 atatttcaca caggtattag gctcagcaag tatttcctaa cctcctgtag tatttagttt 159481 tcaagacttg gggtaggatt gggaccacat tgatttcagg gtgctgactg tacttctgtc 159541 accatcaget agtttaagga caatgactgt cetggcagae accgcaaaca cagageetet 159601 atggtgttct tgagaaatca agaccatcat ctcattggaa aggcggtggg aaacaaggtg 159661 cagggccatt gaggccacac aatcaacaac aggatttgct ccagcctcag agacacagag 159721 tggactggca tactatatca atttggaatc ccctcggcta tgacaagttt gtgaaatgaa 159781 agaacaaaac aatacagtac aagatcaagt tttagtagag agaatgcaga caaccacaac 159841 cgagtactta gggagaaaaa aaaaaaaccc agctcttagc tggggagtga cagtcaaggg 159901 gggaaatcac gcgaaggaat ttctttcagg tgcaagaagg catgagagtg ggagacaagg 159961 attgagcate ttggcagaag gatcagaaac ccagtccaag gtctacactt ccgtggagca 160021 gccgcagaca agcttaggta tccggtgggg ataacctaca gttaagacat cacattacag 160081 acactaggga gccattgtga attacagcca acaggtgaga atcataactt agcggggcgg 160141 acacaacaac caagccgtga tctagagcag gaagcggggg atagacagaa agacaggttg 160201 taatggagga gaccaagcag agggctgcat taaggcagag gcttctgtge tgaccaagtg 160261 actaacacaa agggcccttg cagaagacca gagatgtcag gggggagaat tccttctgag 160321 ggggcctagt tacactagcc acttgatatt caccgggaag gaggcagaga agctaggagg 160381 gtgggcacaa aggcagtggc tctcttctac ctgaggagag ctggcagctc tatcaatacg

FIGURE 6NNN

160441 gactactcct aaatgggctg cagtcagccc agaaaaaaaa aaaatcactc aatactctca 160501 ggttacctac cctggctccc aaagctggtt atgcaagaaa tattttgttg ttgttttgct 160561 tttaaaagga gacaactgat gcttgtttta gtattgtttg aactacatca ctcacaaatg 160621 agagactgat aaagagattg acaagtctga ctctagaagc aaacacttcc agtctgctct 160681 catctgccct ccccacttc ctccattctc ctcggcctct accccacaat atgcttgaaa 160741 atagtaggta actgagtttg ttttgtacgg tggttgtctt gttatttcaa gcagggtggt 160801 ccagagagaa aaaaacattt tctggaaaga ttttaactac tggatcataa acaagcgtgt 160861 ggtggccacg cagcaatctt tgtaataacg aatccaagac gtcctggttg tgaagcccag 160921 tgaatgtaat gttagctgaa aagcaccgcc tgacacacct ggaaatgtgc cacgggccag 160981 ctttgtagac tgcgacttca aagggaaact ggagtctact tccgcttttc agtgagttag 161041 aaatgatttt ggctgtattg gtagggcaga accagaaaat aagttttgaa tttgtcataa 161101 taatttaeaa aaaceaacca acttgttaag atgcatcctc caagcacaac taagctggct 161161 atagaggeta ttetgeatte tgcatetggt eccetggaet geteaggett agggtgaggg 161221 aagaaacatg acttaagcca ttaccettat tetgtgggca tttgaagtgg etgecaggca 161281 cgtgacacca actgttccaa ttggttcaca atgacatcac tttattattc aactctgttt 161341 gcatttcagt ctcctcttt ttcgggggac ttgaggccaa tcctggccaa gtcactttag 161401 aagagaaaga agccagtctt aggtagtcat gaagtgccaa gtgtcttttg tgtctcctag 161461 cctagtttgt aagccgggaa ctggtgacat aaagggctct gtcaacagcg cccgggtgtg 161521 ctgcttccct cgcagcggga gagggagatt gggaacccag tagaaggtgg cggttcggcc 161581 ttgggtaggt cccaactgac caagttcaat aaaatccctg agagtttgtt ttcaattggg 161641 taagaaaact ataaaatgga aaccgcatgc gagcttacgc tggaacctca tttaaagcac 161701 ttgtacttcc aaaaaaaaaa aaaaaaatgc agaaaacatt tctaatttag tcaagcgcac 161761 tettettee tegageaatt agtettaatt catgteacet aactaetatt tetgeattaa 161821 gcaacgtgac ctctagaacc tacagtaacc ccctttctga tggtgaaagt caattattct 161881 gatttttttc atcttcacac aataagttac cagagaataa actaacttca aaaaagcatt 161941 acagtgtcat gtgtgttcgc ctgttgatat gtgcacacat tcatggcacc tgtgggtctg 162001 tatccagete ttetactgtg cetgtetete aattttgcag etcaacetag agateaceaa 162061 gtggccagcg agetccatgg atcagcccgt ttctgccctc ctctgtacta agattacacg 162121 caatcatgct gagcctctaa gaacatggcc gctcatggtc tgaactcgga tcctccacct 162181 agcatggcaa acatgttagg aacggggcca tttcctcaac acaaaggaaa aaggcttcct 162241 catgggagag aatgactgga tgggcgagta gacagatgaa aatggacttt tcacaccaac 162301 tggttagaga ccctgttgct tccaggcaca aagcacacca gtttctagta tcagtgggtt 162361 gaaatgcatg tttaagctct ctcatcctta cttggctctt gacaggaaac ttttatggtt 162421 gaactttatt ctgtagaaat gcagtggcat taaccaagca cacaaagcca actcaagcct 162481 aaagtgtgcc catgactcca accetacact cattggttct tgccagaggc aacacgaaac 162541 agtgtataga ctcagaactc tgcccaggcc tgtgaggcag ggccagggct acacaccttg 162601 caaacacaca gcaggetetg cecaaggage gttcactagg taactateag ggtggeteaa 162661 gggctgtacg acagacagac cctgcacagg cagggaaagt ttcctggaga cctaccatct 162721 attttcttgt aatctcaact gatgtgttct gccaagtcaa ctattatta tcatttataa 162781 agcagetect attggcagea tactetgeat atgttteage aetteataaa eeeteeaegg

FIGURE 6000

162841 tataatcgct tgtggaggag actgggttgc ctggagctgg aatacagacc cacacgcatg 162901 tgagcccgtg taaatgcaca catgaccgtt ccctaccgct ctttcacgag tcatgtcttg 162961 gctctgtagg ccgagtatct ataactaaag ctctctacag gtgtcaaatc aagcaatctt 163021 ggtcctctca gatgtcagct aatggcttag agccccccc ccctaacagt tctatttgca 163081 ttgctaacca aggctatcca ccttagtatc atcatcagtg caagagaagc caaactgcac 163141 acgaagacct ggagagcact tcagagcaca catccgacct cttcctcatc cgagtaccta 163201 gcaagccagt tttccttcct ctcctgtctc cagaagaagt tccaactcca cctcggagca 163261 aagcagcagc tgcagtgact agcagtgact atgcctttgt gactgcgtat cactcatcca 163321 attcacagac tacttagcat cgacttgtat acactttgcc caagaataaa tatttatatt 163381 cccgaaacac agtcgatcga gagcagctga tacagggctg gagatgacag aggcagcaaa 163441 cacaaacaag taagacctcc aggagtgtga gggacagggc tagagacaaa gtaaacagag 163501 gccacaagat cctaggcgct aggtgggggc-taetggtacg taagggctgc tggaaagaag 163561 agtcctccgg ggactggctc ccacaaaggc tgcccaatct caagtggtca gctctgggcg 163621 cttgtctaga tggcaatgct gcgtggactc agtgggttat gtatgcgtgt gtacatgcac 163681 atgctaggat aataattaaa aataagaggt catgagtttg ggaggttgga gtttgctcat 163741 gggagcaact ggaagtgggg ggcagagaaa gggctgggag tgacacaggt gtagttcttg 163801 tgtatggtct aaagattaaa ttagagttag ggaaaaaaaa accccacagg aattgggaag 163861 agtgattccc aagccactga cacagcacag cactgcttgc ctgtggaggt gctcctgtgc 163921 catectecet aatetttatg ttgcacatet taagagtggt etgtttgtgt atecteteat 163981 gcatgtatct cctcagcgtt ctcatccacg aatgcttaca ggtgacgtta gcatcagcag 164041 ttggagaaca agatacactg gaaagaaaac attgtaccct gatttgcacc gggaagagga 164101 gaaagggaac acgctaagca tataaacatg ttaacggtca agtagagtcc aaatcagatc 164161 ttgccactct tcaaactgaa ggtctgtgat acttaaaagg gggaaaaaac ccattgaaat 164221 gcagaaggca gagaccatca ctcaaagata ctcatcgctt ggaggtcagt ttatatttgg 164281 aacagtgact tgggattggc caaccatcac tcatgccatt aaagtaatat ttcagtttca 164341 actgttttac atgcatttag catgtagacg tattcaattt atagttgtaa acggtctaca 164401 agtgtaagaa gccgataccc aagcttcgaa tttgtaggtg tttaagtcta agtcccaatt 164461 cataceggea ctacaggtea geaagtgtat ggtttttaac tttaagaggg egeteaataa 164521 actcggatag aaaatctggg agcaccaggc cttgttgtga agctactttc aaggcgatga 164581 tecteatege caggaggaag ttggtttata cecateatag tteetttaac acaagcaatg 164641 cagaatggcc ttcacaagtg tctcctctaa aatgactgtt taaattgtgt tgtttcaaaa 164701 agaggacatc cacgagccgc atgtttccat tatcccttgg aactggagct acaggcagtc 164761 aagggettee ttacttgggt getgggacae aactetggee etcatggtag aacagcaage 164821 ccagcaacct ttetagttcc aggattaggt cttaactttc gtggtctctt gatggcacac 164881 agaaattgtc tagaagtcag aggctatgta cgggtggatg atgtacaccc agtcgccctc 164941 caagcaagcc aaatatgaaa gcaattttt ttttcaaaaa taaaatagca ccacactgct 165001 ctcccaccag gcgtgtagag attttcccca acaaaatatg acacacatca tatctatgat 165061 tgcttctaaa tgaagaagtc tttaaaagtt ttaacttctt aagggccaaa tatcaatgga 165121 tatattccat ataaataaaa attcatcaga tttgtcttca cctattttgg ttgctgtaac

FIGURE 6PPP

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165241 ccaaccaacc aaccaggtag tetetgtett gttecagtee catttteetg gtgeacaaaa
 165301 ggactgattt tacttgttag aaggttatcg ggcaattctc tgtgtctctc ttacaagggt
 165361 actaagcatt ctcaggaggg ttcaatcttt atggcccaat cactccctt cgccccaaaa
 165421 caatgtcttg atgacettee aacacagtea tggcagatta tggtctgtag getttactgg
 165481 tgccaagggc tcctgagaat acaacaccaa agtgatctca tcccaagaag gatgcttcag
 165541 acagacagte ecacatgett teetetaete etggeteate ecetgtatte catacateta
 165601 tatcccccgt ccctcttagc tctcctctga gtggcaaaga ggcatctccg acttaacgag
 165661 atgcaaggca gagttctagc tccatctgcc atccccacca cacacctccc aaacaaacct
 165721 actcccttcc tcctgccagc tcgggaacgg gcaacttcac ttctcgtttc atctaagcca
 165781 aatgcctgaa tcatccttta tccctctttg ccccacctgc aagatttcac aagtccctaa
 165841 atattcctga atctatctac tcttagttac tgtaactgat gggtgcagtt ctcaacaagg
165901 aactettetg teeeggeact acetgeatee agecatgtet agatacattt tteaattgtg
 165961 tctgcgtaga caaggggtag atgtaccacc agtatctagc aggaagatgc atagacaagg
 166021 ggtagatgta ccaccagtat ctagcaggaa gaggccaggg atattgatag acattctata
 166081 atgcacacag cagetectat cateaaagae tgtecagete aaaatgteaa tggcattgag
 166141 aaactgaget etattecaag ecagtagaat etetecaaaa aaacettete aaaacaaett
 166201 cctaactgtt ttccctgatt tttcactctt aattgctctg ctcgatgaaa acaactaaag
 166261 ttatcagcag aaatacagag tgtgacccac tagagtgctt tgtcttgtgt catggcctgt
 166321 aggcccttgc ctactccact ggcccccggc cagctcctac attctcatcc caccaaattc
 166381 ctacgtcaga gccctaagcc ctcaggtgac tctgctagag acagactcta cggtagtaac
 166441 tgaaggttaa gtgagcccgt aaggaggaac tgagccttgt aatggttggt gccttcatga
 166501 aagacacacg gaagettget eteteateea etetgetgtg aagettgete teceateeac
 166561 tctgctgtga gaagatggcc atccacacag aaaaaggacc tcactggaat ttgaccttgc
 166621 tggaactctg atcttggcct catagttcta ggactttgag aaaagaaacg tcagcagctt
 166681 aagccaccca ggctgtggta ctttgttgtg aaagcttgga ctaatacatt caaccttgct
 166741 accttgccaa gttccagttc actggccatc agtccactta caccacagcc cttgccctcc
 166801 ctcttctgaa ctgccattag ctgaccccta ataaccccta gtcaaaatgc caccctcccc
 166861 aggagggact gtgttactcc atccttcctg gattttgagg acagccccat ggttggcatt
 166921 aaccaagctg cctaccctct ttgcttactg gtctccttga cccagtgcag aaacctctca
 166981 gtcttgcccc ttgtcgaatc aggataagat aatctgtgtg gcttatatct cttaaactca
 167041 aaacaaggaa aggtaggggg tctgtgaaca tgctttgccc catgacccag ttccctctgc
 167101 cgcttctcca aagagagcta ccatacttat gcctacctta gtttcccaag agcccatcca
 167161 gggcaggagg gaatcattac atgtaacatc tagaatgagt acttecttat attettteac
 167221 tttagggagc agcaaaggtt caaggttacg gtaaagtaca ggtatggggg catcaccctg
 167281 atatgatgaa gcaccaagga actccccaat gttaactatc tagccacaga gcaggtaagg
 167341 gtatgctcca gttagtttta cgaggtcaac tctgaacaga ggaaacaaaa gcaagcagta
 167401 aaggactatg aggcacgtgg gtttgtgctg tgtacagccg agcagtcaca gatgcctcac
 167461 taaggaggtg gcatggggac taagagtgac tggagttagc catgggaaat tcaggcaaaa
 167521 agcaaggaag gtctctctga actggtgagg aacagcagtc gtcagtcagt attactgtcc
 167581 gttatttctc tacactggcc ccaggcaggt gcttttgaat gactggctgt ttgcaaaggg
```

FIGURE 6QQQ

167641 aagtccagat acagatggcc gaatgagggg ccacgagcct gtgcaggaca tacagataat 167701 ggaacaggaa ccttgcaatg ctgagaccta ctacgtgacg ggtgcttaac agcttttgag 167761 gttaacggtg ggaatttctg agagaatccc aaagagagct agctggttgc ttgaggccaa 167821 caagggcaag gcttataagt caggggcacc ccagaaagga ggcacacccc agaaaggagg 167881 cagcttctaa gaaagaggaa aagagagaaa gcaggcaagc ctgagaaatc aggcttgggt 167941 ggcctgaaaa ggcagaccat gatgtgtgtg gtgggaaagc agggcaggac tcctcctcct 168001 tctggaggaa tacatgtgct ggcactggga catccagctt caaccccagg ageccaggcc 168061 cagcatgace tectaacgca etgtttagta gacagggtag agcetttaag aatggtgget 168121 cgatggaggc cctgtcccat cctccaagat gtctaaaggg ggtgggactg gctaagtccc 168181 tecttetett ecteacece tecacateca acetecteca aaaacateaa atatttett 168241 ccataaataa ttgcaacagg atgccattgc tttcctcaaa gaaacaatgg cctgattgtg 168301 ccctgtecga eacgggccca gccccagcac acacaaaggg tggctttcag-aagccctget 168361 gtagagaatg ggggtacacc tecttette tettetgtac caagtecact gecetecacc 168421 aggaaaggac atcaggaagg ggctgctacc acaggaataa ttcccatcag aggacagcta 168481 tcattcacct gcctttagat tgccctttgg ccacctctag aaagttcttc gttctggtga 168541 acagaagage acctattgge tetaaaatee aacacacac cacatacagt tttaggetgg 168601 agatatetat aattittit tetaattite aaaettatti gaaattgica tiaattaaet 168661 tttaaaatat ttgaaatcct agcattcagg aggcagaggc tggacaattg ccccacattt 168721 gaggccagtc tggtatacac tgcaagttta ggtcagccag gcctatgtag tgagctcctg 168781 totcaaaaaa aaaatacata agtaaataaa aattataaat agataataaa atagtoccat 168841 tttacgtgta catcttcagt ttcacaattt gagataaagt gaatacagat attttcattc 168901 agtatctgtg gtagtgccaa cactggatgc tcacacaggc tcatgcatgt gaacatctgg 168961 teccegtgge tggcacagtt tgggaaggtt atggaacett taggaggtgg agtettgetg 169021 gaagaagtga gctaagccac tgggtgcaga ctcggaggct gatagctggg ccccacttcc 169081 tgtccgctct cctgtttctt caccccactc cacttcctaa gtacaggaag cgcttcatct 169141 agetteetge ceetgecace acageatece agattaatte catggaaact etaagteaaa 169201 ataagccctt tattacttaa gttgtttttg taacactaat caagtgtgtt tcttggttaa 169261 aaaggacagg ctggactaaa ggattcaatt tcagcactta aggggctgga gagatgagag 169321 agcctgctgc tggggctgtg ggctgggata agttgaggcc cgagtttagt tctcagcacc 169381 catgtttggt tcccaacatt ccatgttcac cccaggcctc caagggcctc cacacacata 169441 gatataccca ccctgagata ttcgcatgca tataaataaa cataaaataa atatttaaag 169501 aacccatcac tttgcagcca tggcttgaca aacaggctct ttggtgtctt cctcacatag 169561 gtgcaagagg aactcaggca ggggtgttga gtttttggat tttgcactta tttatttatt 169621 tattggtggt actctctgtt tattggggga gttgtggtgg gttgccattt gtaacatttc 169681 cattaaagat gttaaaaggc tgccttccca ttttcaaaga ctcagactga tcactctccc 169741 agccagagge ttctgtcage tactaaaggg ttcctttccc ttctatttta tggcctttct 169801 cccatccact tetgetttgt tettttaatt aaaatgaaat gtaggeeete catggetgag 169861 atgctaataa ggcccctgaa agtcatctgt gagcacatcc actcttgttt aaagagccat 169921 gtaaacagac cacagacggc tacagagagc aacgctgcac agggcaagga aaagggaatc 169981 tggctgcacc gtacagtgct acgttgaagt gatttatcac ttatgccagg aggaggaact

FIGURE 6RRR

170041 gaaacacaaa cgcaatttca agtttaagca tggcgtctcc acaggatctt ccatagcaag 170101 cactetgeae tegggggete cetgteagga aacteetgga caacggttgg tttgeegtet 170161 gatccacttc agttacctca ccaaacattc aagaggtact ttctgatgtg tgtgggcttt 170221 agcgctaggt tgatacaaaa cagtacctgg atctgtactg gaagtcaact atatttgctg 170281 ccaaatccat tgtaactggc tctgcatgga gccatccgtg tgagagaggc tgatgtgtct 170341 gccaccactc tgcagacact ggaaacagcg caggaccaat ctgtatccat cgttcctacc 170401 tgtttctcag tgggtaacat tctcaaagca ttttcagatg aagaatttag tcagacagac 170461 agacagatgg agacacggat cactggaaga ctgctgtatg gggccacatg gggaaacact 170521 gggttagtca ggaagacacg gcggtttcta cagggaaagt ctgggtgtcc ctttggagtt 170581 cttgtgtgag aaagttgtcc ccaaggtatc agtgctggga gatacaagtt ttttgggttt 170641 ttttgtttgt ttgtttgctt gtttgtttgt ttgtttcaag acagggtttc tctgtgtagc 170701 tetggetgte-etggaactea etttgtagac caggetggee tegaacteag aaatcegeet 170761 gtctctgcct cctgagtgct gggattaaag gcgtgcgcca ccacgcccag gtgggagata 170821 caagttttaa gaggtgggcc tggtgatagg ttcttaggcc actgggtacc ctgtcctcag 170881 agattaaggt aatteteaca agagggetag agaaacggge caagtgtgae etetetecae 170941 atctgcttct tatgtttact tgctctcagg ttcctgtcac tgactcgagc aagagcaacc 171001 cttaccatag ctgcactatg atgtttggac ttcaaaacca aactctggac attaactaag 171061 atttctcttt ttaaaatcag taatacactg ttgactaaca atgaatgaat gaagcagagt 171121 aagtaggctg aggatggact ggttcaagtt atcttggcag gcagtgaagt tgggtagtgt 171181 acggcttccc tggcatgtgg ccctagggag accaggacag aagaatattg acgcagagtg 171241 tgagaggcca atcaaggaag tgtgggggct gagatatgtg cttctttact acctaggaat 171301 ctacgagaat ctcttcaggc tcagtcgagg cccccaaac ggcaagcctg tctaagtaca 171361 ggaaacaggc aagattaata tggaatagtg gcgcaaacca attagctcaa aaatttccac 171421 aaccccatgt attagccctc tgctcagctc agggagataa tgagaacaca taacggaagc 171481 tcccagttca ccaatgcaac tggggagcgg ggggggatgg gtacctcaac cactcttaat 171541 gagtetgtag actaagataa cagaatggca gtettecate aacatgaggt aaagetagca 171601 tggcacctca gcctttcaaa gttactgttc actgaaatgt tattagaaaa attgccaatt 171661 gtgataaagc ctatggatca aacactactc ccattgcaag gaacattcat aaacagaaag 171721 ctgttgtcag tccccgaaac ttaaactgta tagagcagag aaaacctgga agagggaagc 171781 gccataatac ggatgagaaa acagggctag gggctcgtaa atggcagatc aggaaggaat 171841 cccatccgcc ttggagttgg tgatcttgta atgttcagag aatggactca tttcaactca 171901 caggttcggt gtgacccacg tgcttgctga agcaccgtgc ttactgtatg gtgctacaca 171961 agtgaggtct ctcataagct gcagagacac agaaaagtct caagggacag gtgggtgcat 172021 gtgtccaaga cctggtcgag cagttaatac gtccaggttg tggcttgtgc tctgcttcat 172081 tagtgtttg ccagcgacta ggaatgtgac ggctaccacc ttgctgtttg gactcatttc 172141 atggggtaac tgcagcaggc acagggaatg agctaagaca gaccctgggt gagggaggca ... 172201 gctcatcttc aatgcccgga gagcacaacc tatctgatct gatatactct ccagtttaca 172261 aactactgac aatcacatca agtgaagggc agctgcagcc acagctctcc cttgttcaca 172321 gtttgctttc cttggttcta gttacctgaa ggcaactatg acataacaat attaaatgga 172381 aaattacaga aataaagtag ttccttggcc tcaagttgcc tgccactgga agttacagga

FIGURE 6SSS

```
172441 agccatcttg ttgtcctgct ctgtaagggt cctccctttc tgcaacggat ccaggctgta
172501 tacccaacca tcggctagcg acgtcataga gatctgagta gaacaagtgc tgttgttcaa
172561 gtacccctga ctttacttaa cagtgacccc caaacgggaa aaagagtagt gttggcaact
172621 tattacagcc aaaaacatgt tattacaatg tatttttatg actgctgtat tgatactgtt
172681 aattgctggt tataattaag cttcgttata gatacgtatt tataggaatt agcagcatac
172741 atcaggtttg gtggtattta tggtttcagg aatctactac agatctttga aagtatctcc
172801 ctcacaggga gagagactac tgtaccattg ctcttcaatg gtgactccta atactggcat
172861 atagacaget etgetgacet tttagaagtg ceagagaaca ggeactetgg acacageget
172921 gctcttggcc tcgagggatc tgcaagaagg aatggaggga aggatatgtc tctggggacc
172981 agcttctcct ttgaacatgc aggaactaat gagacgcttt ttgaaggagt ccaggtgagt
173041 gacacctatt aaaggtgctt agttaatgct catccccata aacgcccatt acggcgacag
173101 gttcccacta ctcagccgga acgtttgagc-tctagatgct cctctgaaga aatggctgaa
173161 aaatcaggga gagatgctaa acccaaacac agtagcagtg ctggcaggag atgagccagg
173221 ctggtgaget gttcgtaaac cagetgteec cgccccaag actggagagt acagagaatt
173281 ccatgcaccc agggtcgtct taagacatga acatgctttc agagctgcat ccctaagaaa
173341 ctcctacaaa cctgctccag accatgaccc tgcaggctct gtctcacccc tgcccttcca
173401 ctcagetget cetgagetae agectggeta aaatageaat getacatttt etgecatttg
173461 ggggccactg aggcaaatga tcatgttgaa ggggtaactg gctattcact caaacctctg
173521 cattectcag tgagaggaca gtetcagagg ateccaecag gatgtgetgg etetgeatgg
173581 tgggtgtcag aactacattc gatttgcagg taccatatgg tgtttgcggg gctggaaccc
173641 tgcttgtggg tattgaaaat cacgtactgg gagtcaggag cgttgtgagt acaaacattt
173701 cagagtgttg agagtgcttg gtgggggttt aggaacaagg caggctctga cttaccagaa
173761 ctgcagcttt tattctgaag tttcttttaa gaaccaagat taggggctgg agagatggct
173821 cagaggttaa gagcacccga ctgctcttcc gaaggtcctg agttcaaatc ccagcaacca
173881 catggtggct cacaaccatc tgtaatgaga tctgactccc tcttctgggg tgtctgaaga
173941 cagctacggc gtacttacat agaataaata aataaataaa tctttaaaaa aagaaaaaaa '
174061 gctctcgaga acatgacagg gtggggtgtg cagataagaa ggctctagct agggtagctg
174121 gaatccctct ttcaacgatg gcgaagcact ggcacccgta gaaagaagga atgatacgaa
174181 tcagcccact attctgaact atgtccctgc ccagacacag aggcacatgc tgggcctgca
174241 gcaaatagcc ctggagccac actcgtggtt ggcgtgcaga ggaggaacca acccatcaga
174301 actctgtccg tgtgggtgtg tgtaggtgcc tgtggtgaag gtcagaggtc aactcaggtg
174361 tecaatecag geteettttg aacttetage ttagtttgte aacaetggea getgaattgg
174421 gtttgtttgt ttgttttttg agatgtgatc ttgatctgca gcccaggctg ggcttgaatt
174481 C
```

FIGURE 6TTT

1	aaagggaatt	tcatcccaaa	taaaaggaat	gaagtctggc	tccggaggag	ggtccccgac
	exon 1					

- 61 ctcgctgtgg gggctcctgt ttttctccgc cgcgctctcg ctctggccga cgagtggaga
- 121 a atctgcggg ccgggcattg acatccgcaa cgactaccag cagctgaage gcctggagaa exon 2 Primer 1
- 181 ctgcacggtg atcgaggget acctccacat cctgctcatc tccaaggctg aggactaccg
- 241 cagetacege ttteccaage teaeggteat caeegagtae etgetgetgt teegtgtgge
- 301 tggccttgag agecttggcg acctettece caateteaeg gteateegeg getggaaget
- 361 cttctacaac tacgccctgg tcatcttcga gatgaccaac ctcaaggaca tcgggctcta
- 421 caacctgagg aatattaccc ggggggccat caggatcgag aagaatgcYg acctctgcta SNP469
- 481 cctctctacg gtggactggt ccctgatcct ggatgccgtg tccaataact acatcgtggg
- 541 caacaagece cetaaggaat geggggaett gtgeecaggg aegetggagg agaageeget
- 601 gtgtgagaag acgaccatca acaacgagta caactatcgc tgctggacca cgaaccgctg Primer 2
- 661 ccagaaa|atg tgcccgagcg tgtgcgggaa gcgggcgtgc acagagaacc acgagtgctg
 exon 3
 Primer 3
- 721 ccacccegag tgcctgggca gctgcagege acccgacaac gacacRgcct gtgtggcctg
 SNP766
- 781 ccgccactac tactacgccg gagtctgcgt gcccagctgc ccacccaaca cctaccgctt
- 841 cgagggetgg egetgegtgg accgegactt ttgegeeaac atccccagtg eggagageag
- 901 tgactccgag ggctttgtga tccatgatgg Sgagtgcatg caggagtgcc cttcaggctt
 SNP931 Primer 4
- 961 <u>cateegeaat</u> ggeageeaga ge|atgtaetg tateeettge gaaggeeett geeceaaagt exon 4
- 1021 ctgtgaggaa gagaagaaga caaagaccat tgattctgtc acttctgctc agatgctcca
- 1081 aggatgeace atetteaagg geaacetget cattaacate egacgegge|a acaacattge
- 1141 ctcggagcta gagaacttca tggggctcat cgaggtggtg acgggctacg tgaagatccg
- 1201 ccactcccat gccttggtct ccttgtcctt cctgaaaaat cttcgccaga tcctagggga
- 1261 ggagcagctg gagggglaatt actcetteta egteettgae aaccagaact tgeagcaget exon 6
- 1321 gtgggactgg gaccatcgca acctgaccat caaagctggg aaaatgtact ttgctttcaa
- 1381 tcccaaattg tgtgtctccg agatttaccg catggaggaa gtgacaggga ctaaagggcg
- .1441 ccagagcaaa ggggacataa acaccaggaa caatggagag agagcctcc t gtgaaagtga exon 7 Primer 5
- 1501 cgtcctKcac ttcacctcca ccaccacgtg gaagaaccgc atcatcatca cctggcaccg SNP1507
- 1561 ataccggccc cctgactaca gggacctcat cagett<u>cact gtctactaca agg</u>aagcg|cc
- 1621 ctttaaaaac gtcacggagt atgatgggca ggatgcctgt ggctccaaca gctggaacat Primer 9
- 1681 ggtggacgtg gacctccctc ccaataagga cgtcgagcct ggcattctac tgcatgggct
- 1741 gaagecetgg acacagtacg c Ygtttacgt cRaggeegtg acceteacea tggtggagaa Primer 7 SNP1762 SNP1772

FIGURE 7A

PCT/CA2004/001674 WO 2005/026386

> 1801 tgaccacate egtggggeca agagtgagat ettgtacatt egeaceaatg ettealgttee Primer 8

exon 9

- 1861 ttccattccc ctggatgtcc tctcagcatc aaactcctct tctcagctga tagtgaagtg
- 1921 gaaccegeee teeetgeeea atggeaacet gagetaetae ategtgeggt ggeagegeea
- 1981 gcctcaggac agctatctct accggcataa ttactgctcc aaa Primer 10

ggtgagg gggacatggg acacctgtgg ctctgactcc cgagccctat gctacgcatt cagcatcagg ctgctgctgt Intron 9

gtgcagcctt ggccatggtc acaggtgcta accgYggtgt cYtcccgtac cggttgggta acttggctct SNP9i112 SNP9i119

ccttgggctg ctcttttcca agca gacaaaa tccccatcag exon 10

- 2041 gaagtatget gatggcacca ttgatgtega ggaggetaca gagaacccca agactgaagt
- 2101 gtgtggcggg gagaagggac catgctgtgc ttgccccaaa acagaagctg agaagcaggc
- 2161 agagaaggag gaggctgagt accgcaaggt cttcgagaac ttcctgcaca atgccatctt Primer 11
- 2221 tgtgcccaga cctgaacgga agcggaggga ggtcatgcag gtcgccaaYa ccaccatgtc exon 11 Primer 12 SNP2269
- 2281 cagccggagc agaaacacca cagtggtgga cacctacaat gtcacggacc cagaggagct Primer 13
- 2341 tgagacagag taccettttt ttgagagcag agtggataac aaggagagaa etgtcattte
- 2401 caacctccgg ccttttactt tgtaccgaat tgacatccac agctgtaacc atgaggetga
- 2461 gaagetggge tgeagtgeet ceaactttgt etttgeaaga accatgeetg ca|GGTAT

Intron 11

GGTGTGATCCAGTCACTCCATTCCTAATTCACTCACAGCCTTGATTTGTAC AGATGGAGGCTGACACCCAGGGCAATGACCCTTACTCTCAGTCCTGCTTA TTAAAGAATGAGTGGTCTTTTGTAGGCAGCTCACTAGTCCAGCAGCCCAG GAATGGAGTTCATTCATAGCAACCCCACTCTCTCCCCAGTCTCTCCATACA GAGTGCTTGAGAGCAGGGAACTCAATTCAGGGTCTACACTTTCCCTCTCCT TGGTTCATGTTGTGCATTGCCGTGGGCCCTTTTTTTTGCCCATTTATGCAAA GGGAAATTTGCCAGGTCTCTCCTGAGTTCTCAGAGATTC

TGTGAAATCCTCAGTTGGCTGCCTGAATCAAAGTGAGTGTAGCTCCTGA AGGTCAGCTCCCAGAGCAGCTTCGCGTCCTGCTTGTTTGGTCCTCACCTTC CTCTTCTTTTAGAAGCTACCTGTGGCCCAGACAGCAAGCCATC(N),AAAAA AAAAAAGAAACCTACTGT

GTATGTGAGGTCAGGTCAGGAGAAATGAACGCAGGTACCGTCTGCAGTCC TGTATGCATGGTTGAAGAGGGTATTCTTAGGTTTAA

TCCAGCATTTTTTGTCTTTTTTGGGGGACTTGAGTCTAACTTCATTGCTTGT TTCAATTGTTGCACA|gaaggagc

exon 12

- 2521 agatgacatt cctgggccag tgacctggga gccacggcct gagaactcca tctttttaaa
- 2581 gtggccagaa cctgagaatc ctaatggatt gattctaatg tatgaaataa aatacggatc
- 2641 acaagtcgag gatcagcggg aatgtgtgtc cagacaggag tacaggaagt atggaggggc exon 13
- 2701 caagetgaac aggeteaace eggggaacta caeggeeegg atteaggeea cetetetete

FIGURE 7B

	aacctgtgtt cttctacgtc caggccaaa a cgacatatga	
	exon 14	
2821 aaacttcatc catctgatca tcg	gecetace agtggeegtt etgttgatag taggagggtt	
	acagaaa gaga aataac agcaggctgg ggaatggagt exon 15	
2941 getgtatget teegtgaace eg	ggagtactt cagcgcagct gat gtgtacg tgcccgacga	
	exon 16	
3001 gtgggaggtc gcccgggaga	agatcaccat gagccgggag ctgggacagg gctccttcgg Primer	14
3061 gatggtttat gaaggcgtcg co	caaSggYgt ggtcaaagat gagcctgaga ccagggtggc SNP3085 SNP3088	
	cegecageat gegYgagagg attgagttte teaacgagge	
	SNP3154 <u>Primer 15</u>	
3181 ctccgtgatg aaggagttca a	ctgtcacca cgtg GTGAGGGAAGGGCCCCAAG	
Primer 16	intron 10	
GGTTGGGRCCACCCTTATG	GGTTTGCGACTCATCCTGTCTCTGTAGGATC	C
CTSTCACTGCTCAAGAAGG	TTGGGGGGGATGTGCA	
SNP16i27	SNP16i73	
GGTCCAGGGAGTCTGGTGC	CCACATCATCCAGGGTTGCTCAGGGTGGTCC	T
GGTGGGGTTGGGGGGCTGC	CGGGGGCTCACCCCCTGTCTCCTTCTCTTTCC	: C
CCTCACAG gtgcgg ctgctgggtg		
15 65 6 66 6	exon 17	
3241 gggccagcca acgctggtca Primer 1	tcatggaact gatgacccgg ggggacctca aaagttatct	
3301 ceggtetetg agaccagaaa	tggag aataa tccagtccta gcacctccaa gccta <u>agcaa</u> exon 18	
3361 aatgatccag atggctggag	agatYgcaga tggcatggca tacctcaacg ccaataagtt	
Primer 18	SNP3385 Primer 20 Primer 1	9
3421 tgtccacaga gacctcgctg o	cccggaactg Yatggtggcc gaagacttca cagtcaaaat SNP3451 Primer 21	
2.401 aggalgatttt aggatgagga		
J461 Cggalgatiti gggatgacga	gagacateta tgagacagae tattacegea agggagggaa	
exon 19	gagacatcta tgagacagac tattaccgca agggagggaa	
exon 19		
exon 19 3541 agggetgetg cetgtgeget (3601 geactetgat gtetgg teet te	gagacateta tgagacagae tattacegea agggagggaa ggatgteece tgagteete aaggaeggag tetteaceae eggggtegt eetetgggag attgeeaege tggeegagea exon 20	
exon 19 3541 agggetgetg eetgtgeget to 3601 geactetgat gtetgg teet to e 3661 geeataceag ggettgteea	ggatgtcccc tgagtccctc aaggacggag tcttcaccac cggggtcgt cctctgggag attgccacgc tggccgagca exon 20 acgagcaagt ccttcgcttc gtcatggagg gcggccttct	
exon 19 3541 agggetgetg eetgtgeget to 3601 geactetgat gtetgg teet to e 3661 geeataceag ggettgteea	ggatgtcccc tgagtccctc aaggacggag tcttcaccac cggggtcgt cctctgggag attgccacgc tggccgagca	
exon 19 3541 agggctgctg cctgtgcgct g 3601 gcactctgat gtctgg tcct tc e 3661 gccataccag ggcttgtcca g 3721 ggacaagccg gacaactgtc	ggatgtcccc tgagtccctc aaggacggag tettcaccac cggggtcgt cetetgggag attgccacge tggccgagca exon 20 acgagcaagt cettcgcttc gtcatggagg gcggccttct ccgacatgct g tttgaVctg atgcgcatgt gctggcagta	
exon 19 3541 agggctgctg cctgtgcgct g 3601 gcactctgat gtctgg tcct tc e 3661 gccataccag ggcttgtcca g 3721 ggacaagccg gacaactgtc 3781 caaccccaag atgaggcctt Primer 22	ggatgtcccc tgagtcctc aaggacggag tcttcaccac cggggtcgt cctctgggag attgccacgc tggccgagca exon 20 acgagcaagt ccttcgcttc gtcatggagg gcggccttct ccgacatgct g tttgaVctg atgcgcatgt gctggcagta SNP3757 exon 21 ccttcctgga gatcatcagc agcatcaagg aYgagatgga SNP3832	
exon 19 3541 agggctgctg cctgtgcgct (3601 gcactctgat gtctgg tcct tc e 3661 gccataccag ggcttgtcca (3721 ggacaagccg gacaactgtc 3781 caaccccaag atgaggcctt Primer 22 3841 gcctggcttc cgggaggtct (ggatgtcccc tgagtcctc aaggacggag tcttcaccac cggggtcgt cctctgggag attgccacgc tggccgagca exon 20 acgagcaagt ccttcgcttc gtcatggagg gcggccttct ccgacatgct g tttgaVctg atgcgcatgt gctggcagta	
exon 19 3541 agggctgctg cctgtgcgct (3601 gcactctgat gtctgg tcct tc e 3661 gccataccag ggcttgtcca (3721 ggacaagccg gacaactgtc 3781 caaccccaag atgaggcctt Primer 22 3841 gcctggcttc cgggaggtct (3901 ggagctggac ctggagccgg	ggatgtcccc tgagtccctc aaggacggag tettcaccac cggggtcgt cetetggag attgccacge tggccgagca exon 20 acgagcaagt cettcgette gteatggagg geggeettet cegacatget glttgaVetg atgegeatgt getggcagta SNP3757 exon 21 cettcetgga gateatcage agcateaagg aYgagatgga SNP3832 cettctacta cagtgaggag aacaageege etgageegga g agaacatgga gagegteece etgageegea g agaacatgga gagegteece etgageeecet	
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